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MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE.

PUBLISHED UNDER THE DIRECTION OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

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ERRATA.

- No. 2, page 8, line 17, for Scoresby Routledge read John Roscoe.
 No. 101, page 153, line 27, for 19th read 18th.
 No. 120, page 177, line 30, for Hlodonin read Hlodimir.

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FIG. 1.



FIG. 2.

SIBERIAN BRONZES.



FIG. 3.

CHINESE JADE MONSTER.

MAN

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ORIGINAL ARTICLES.

Archæology.	With Plate A.	Read.
Siberian Bronzes and Chinese Jade. By Sir C. Hercules Read.		

The plate shows two interesting bronze castings of Siberian or Scythian origin and a monstrous animal in jade. The two former were secured recently in a London saleroom by Mr. Louis Clarke, who has generously given them to the British Museum. The jade monster is the property of Mr. Oscar Raphael, F.S.A. I append a detailed description of each.

1. Bronze pierced plaque, convex in front and concave at the back, representing an animal with a horse-like body and griffon head and ibex-like horn standing calmly while a wolf-like creature attacks it by biting its foreleg. From the back of the latter rises a series of curved designs simulating birdheads with pear-shaped sinkings. From one of these curves just above the wolf's tail projects a small hook. The tail of the horse has been longer, like that of the following specimen; the fractured surfaces are filed. Smooth green patina. Figured back and front full size in Fêng Yün P'êng, *Chin Shih so*, 1823, Vol. I, Cap. 4 (*Chin So*, Coins). It is there described as a horse coin, and the design as two horses, a large and a small one, like mare and foal. No suggestion is made that it is not of Chinese origin. Length, 4·7 ins. (Fig. 1).

Of this and the following specimen there is no history of any kind, and it is fortunate that Mr. Clarke's perspicacity enabled him to recognise their unusual character and interest.

This plaque is identical with a figure in the Chinese work on Ancient Inscriptions on Bronze and Stone, mentioned above. So exact is the resemblance between the plaque and the Chinese illustration that it is not impossible that we have here the actual example figured. The Chinese illustration is repeated by M. Salomon Reinach in his memoir on "La Représentation du galop dans l'art ancien et

moderne,"* where he discusses not only this piece, but many others of the same class. This particular specimen he states to be almost identical with one of the most beautiful plaques at the Hermitage, acquired in 1844 from a Buriat, who, according to his own account, had it from his father, who brought it from Mongolia. Both M. Reinach and M. Chavannes agree that it has nothing to do with China, but must be an importation from Siberia, which, indeed, is sufficiently obvious.

One of the characteristic features of these Scythian plaques is seen in a marked degree here. The bronze evidently represents a fierce combat between the griffon-headed horse and the wolf, but nevertheless the whole pose of the former is calm and undisturbed, the attitude of the body and legs displaying no signs of excitement, so that the fight would seem to be an entirely one-sided affair. This curious feature may be noted in nearly all the numerous examples shown in Minns' *Scythians and Greeks*, in the albums of the Khanenko collection, and in the article in the *Revue Archéologique*. Another peculiarity, equally typical and more readily marked, is the presence annexed to the general design of a number of gratuitous curves, which in some cases develop into an independent design and display the heads of birds, griffons, and other abnormal creatures. In the present specimen it is not easy to discover any reason for the presence of this mass of openwork curves that surround the horse's head, the lines of which would eventually merge into birds' heads if they have not already done so. In a good number of instances this subsidiary development is more prominent than the main design, which is often nearly extinguished (*e.g.*, Minns, Fig. 129, 196, 197).

2. Bronze pierced plaque, convex in front and concave at the back, representing a combat between a lioness and an eagle. The former grasps with his jaws the legs of the bird, which has a firm grip with its beak on the lioness's neck. The eagle's wings and tail are treated conventionally, being indicated by curved lines and having curled ends. Greenish-grey patina. Length 4.8 ins. (Fig. 2).

In its general characters this piece resembles the last, the lioness in its pose being conspicuous for the absence of any violent action, but the openwork curves are replaced by a feature as characteristic, viz., the purely ornamental treatment of the wings of the bird. For the artist they have ceased to be members having any functional qualities, and the contours have been adapted to the ideal outline of the plaque. An instance of the same treatment is seen in Minns' Fig. 199, a gold plate with coloured inlay from Siberia, in which an eagle is attacking a yak; while a similar development of the horns of a deer is shown in his Fig. 183, where the conventional treatment of the horns suggests a palmette on the top of the animal's head. Similar decorative vagaries are to be found scattered throughout Mr. Minns' work.

3. Quadruped, cut from a flattish oval pebble of grey jade. The animal is in a crouching posture with the right fore-foot advanced before the chest, the back hunched up, and the neck curved in a swan-like attitude. The limbs are edged with undulating waves, and the feline type of tail is curled under the body. The most remarkable feature is the head. The jaws project, the mouth being partly open, showing saw-like teeth, terminated by large upper canines, incurved, and touching the lower jaw, nostrils drilled through. The upper part of the skull is bulbous, with deeply pierced eyes, the ears pointing forwards and marked with herring-bone lines at the edges. Under the jaw is a wave-like adjunct, looking at first sight like a paw. The paws are divided into five digits. The whole design is completed at the bottom by a sort of plinth, not unlike the general design of the two preceding bronzes (Fig. 3).

* *Revue Archéologique*, 1900-1901.

This jade monster is placed side by side with the two Scythian plaques, because though they may be widely separated in date, there is still an affinity between them. On the general question of such a relation, Mr. Minns makes some very apposite remarks. After discussing in detail a very large number of examples of Siberian and Scythian art of the type of our two plaques, he proceeds:—

“The remarkable art of which the examples have been discussed in the preceding pages evidently flourished in the Asiatic Steppes. One specimen (our Fig. 1, and Minns, page 251) generally similar to the plate from Verkhne-udinsk, found its way to China, and is figured in the archaeological work, *Kin Shih so*. There is some resemblance in character between Siberian and Chinese art; it may be due to some community of race, or perhaps one may have influenced the other; or the connection may go back even to Minussinsk days, or again, the resemblance may be due to both having borrowed from Iranian or some other Central Asian art; in each case we seem to have an intrusion of monsters ultimately derived from Mesopotamia, the great breeding ground of monsters. And so they finally penetrated to the borders of China, just as the Aramaic scripts twice traversed the same stretch in the cases of the Turkish and Uigur alphabets. The early Chinese bronzes and jade earrings . . . are very much conventionalised. . . . The Dragon, Tiger, and Phoenix only come in under the Han dynasty, and decidedly recall Persian types, *e.g.*, the Simurg, but the way in which their bodies are twisted about is rather in the Siberian spirit.”

This is very true, and Mr. Minns himself discerned something of this Siberian spirit in Mr. Raphael's jade monster, and now by chance we are able to place it side by side with two most characteristic examples. As a type of animal or monster, I do not remember to have seen anything like it in Chinese sculpture, though monsters are common enough. The general design, though not unlike Chinese, yet recalls many of the contorted Siberian beasts (*e.g.*, Minns, Figs. 198, 200) in its main outlines. Generically, as an animal, moreover, it has an affinity with a number of queer creatures of the early Iron Age from Perm, Tobolsk, and the Petchora.* The paws are the same, and the conventional flames or clouds on the jade might well be the remote descendants of the lituus-like lines on the Early Iron Age creatures. There is, moreover, a very un-Chinese character about the head of the jade beast, with its rounded forehead, and long powerful jaws are furnished with an armature of saw-like molars and powerful canines that nearly resemble the same features in the wolf in Fig. 1.

Mr. Minns, in the paragraph I have quoted, has given a hint as to the relations of this Siberian and Scythic art, and his book, admirable in both senses, contains both a digest of all that has been written on the subject, and his own very valuable deductions from the facts he has gathered. It would seem to be unquestionable that many well-known features of our pagan Saxon art, and that of Western Europe generally, have their roots in this Siberian culture, and it is even claimed that Carolingian art is equally in its debt.† It seems fully as clear that though the *floruit* of Siberian art runs through the centuries just before and after the beginning of the Christian era, yet an unbroken line of ancestry can be traced backwards well into the Bronze Age. Thus in length of time we have a pedigree of no mean importance, while the geographical distribution forms an equally important and much more puzzling feature. One point seems to stand out in clear relief, viz., the practically indigenous character of the Scythian and Siberian art. If one finds, as seems certain, that the prototype of so stylistic a creature as the reindeer, with the wildly exaggerated horns, is already in existence in the Bronze Age in Siberia, it is hard to believe that he is of any-

* Aspelin, *Antiquités du Nord Finno-Ougrien*, Figs. 551-553.

† Appelgren-Kivalo in *Opuscula—Oscari Montelio*, 1913, p. 365.

thing but native growth, and equally hard to guess from which of the surrounding culture areas he can possibly have been derived.

Seythian remains are rare in this country, and until the publication of Mr. Minns' monumental work were but little known to the outside world. His book will provide enough for most inquirers: if any of them want to go further afield, he has given them ample references to the Russian and western literature of the subject.

C. H. READ.

Japan: Folklore.

Hildburgh.

The Directing of Conscious Agents in some Japanese "Imitative" Magical Practices. By W. L. Hildburgh. 2

In analyses of magical operations the assumption is generally made that the mimicking of a desired effect is due to a belief, or at least to an undefined feeling, that the mere representation of that effect, or of some of its more salient characteristics, will be reproduced in the manner that the operator has in mind, without the intermediation of any conscious agent—that is, briefly, that of itself “like produces like.” In Japan, although there is a much greater body of homeopathic magical practices in which there seems to be, at least at present, no trace of an appeal to, or of an attempted constraint of, a supernatural being, there are many magical (or magico-religious) practices which, although they may seem when superficially regarded to be truly homeopathic in nature, appear when examined more closely to be in reality performances for the purpose of indicating to some supernatural being the direction in which it is desired that that being should exercise its powers. Whether some of these practices may have originated as true homeopathic magic, and have been later adapted to conceptions based upon a belief in supernatural beings, or whether homeopathic practices in which no conscious agent at present appears may in some cases have been derived from forms in which such agents originally appeared, are questions into which I have no intention of entering here.*

The symbolical conveyance of good wishes is still a very common feature of Japanese life—we find it in connection with the giving of presents on various ceremonial occasions, and in the accessories used on certain occasions, such as the New Year's festival—even though the objects used for this purpose and symbolically at the present time may not originally have had the meanings attached to them to-day.

An excellent, and seemingly unmistakable, example of the conveying of information to supernatural beings by means of a symbolical performance occurs in the legend of the hermit Eu no Shō-kaku, who, when he wished to erect a temple at Yoshino “to the god who might be fittest to ensure the salvation of the human race,” after having rejected Jizō as being too mild, and then Mi-roku, “spent seven days more in an upright posture, with glaring eyes and clenched fists, so that the gods might better understand the nature of his requirements, until at last there stood before him a being pale with concentrated rage.”†

The mode of application to the conscious agent whose powers are involved is sometimes (i) more or less clearly in the nature of a prayer, sometimes (ii) in the nature of compulsion by means of an action believed to be of an irritating nature, sometimes (iii) of an indefinite nature seemingly intended as a sort of vague appeal to, or reminder for, the conscious agent involved.

* The definition of magic (*majinaï*) given by Yamada, a modern Japanese lexicographer, quoted by Aston (*Shinto*, p. 327)—“The keeping off of calamity by the aid of the supernatural power of “Kami and Buddhas”—although, as Aston points out, too wide in certain respects and too narrow in others, is worth citing here as possibly indicating a current of thought allied to that which seems to run through magical practices of the types about to be discussed.

† E. M. Satow, Murray's *Handbook for Japan*, 1st edition. Yokohama, 1881, pp. 366-367.

(i) The following examples seem to be in the nature of prayers :—

(a) In order to preserve a house, during a conflagration in the neighbourhood, from the danger caused by sparks falling upon the (often inflammable) roof, a cup of water is offered before the picture of a certain Fire-god, sparks are struck, by means of a flint and steel, so as to fall into the water and be extinguished, and finally the water is thrown upon the roof of the house [recorded at Yokohama]. The symbolism here seems clearly to be an appeal for the god to make his instruments, the flying sparks, innocuous with respect to the roof upon which the water is thrown; since, however, sparks are sometimes struck by means of a steel for purposes of purification, and there is also the possibility of the misplacement of a part of the rite in popular practice, it may be that some other interpretation should be placed on it.

(b) In certain mountainous districts, when there is a drought, some of the men climb the highest peaks accessible—which are thought to shelter the most powerful of the divinities of the class invoked—on *Amagoi* (“praying for rain”) expeditions. The men build a bonfire before the shrine on the top of the peak, and then fire off guns, shout, and roll boulders down the mountain side, in order to represent the storm they desire.*

(c) In ancient times, a black horse was offered, in addition to the offerings generally made, when praying for rain to the gods of certain shrines, because black is the colour of the rain-clouds; a white horse was offered when fine weather was desired.†

(d) At the San no miya at Nikkō, “It is believed that pregnant women may obtain a safe delivery by offering up here pieces of wood, such as are used in the Japanese game of chess, inscribed with the Chinese character for ‘fragrant chariot.’”‡ As the “fragrant chariot” of the game of *shōgi* is permitted to move forward freely, but is debarred from moving either sideways or backward, we may reasonably assume, I think, that the offering of the piece mentioned is intended to indicate to the divinity the applicant’s desires concerning the straight-forward path of the child (or, perhaps, course of the birth).

(ii) In the following examples the supernatural beings applied to are caused to become irritated, and the symbolism is used, seemingly, in order to indicate in what directions the operator’s wishes lie :—

(e) The *Ushi toki mairi* is, as I have pointed out in “Notes on some Japanese Magical Methods for Injuring Persons” (MAN, 1915, 65), a practice in which a tree-spirit is angered by the driving of nails into its dwelling-place, so that it goes forth to seek vengeance. The likeness of the victim, which is nailed to the tree, is, I have suggested (*loc. cit.*), probably intended in at least some forms of that practice to indicate to the offended tree-spirit the person to be injured and the manner of the injury desired.§

(f) Since the publication of the “Notes” above mentioned, another method of injury, of a similar kind, has been brought to my notice. In Chikuzen Province, in Kyūshū, until fairly recently, a person seeking to injure another might go, employing the utmost secrecy, into the forest near his village, and there, having selected a large pine tree, drive nails into the latter’s roots, at the same time cursing his intended victim. As the result desired was that the victim should rot (“*kusaru*”),

* W. Weston, *Mountaineering in the Japanese Alps*, London, 1896, pp. 160, 161.

† Aston, *op. cit.*, p. 287.

‡ Satow, *op. cit.*, p. 416.

§ It is, of course, open to argument that one of the seemingly truly homeopathic Japanese practices in which a person’s likeness, of some kind, is subjected to injury, has been joined with a spirit-angering performance. The other examples of the present article seem to indicate, however, that the likeness is really intended as a means of guidance.

a pine tree was chosen in preference to a tree of any other species, because the resin exuding from its injuries resembled the putrescence of the sores to be inflicted upon the victim.* A feature of peculiar interest in this *majinai*, in view of the large Malayan element believed to exist in the population of Kyūshū, is its close resemblance to a Sumatran practice which I have quoted (*op. cit.*, p. 120) from *The Golden Bough*.

(g) Another practice to which I have referred in the above-mentioned "Notes" (second section, in MAN, 1915, 80) is that in which a picture of the *Hashiri Daikoku* is used for injuring a thief, the picture being inverted in order to irritate the divinity (Daikoku) involved, and a pin being driven through each foot of the picture (or into other parts of the body when injury other than laming is desired) in order, seemingly, to indicate in what directions the injuries should occur.†

(h) In order to secure rain, in times of drought, a black dog is stoned to death in the bed of a stream, so that blood (an unclean substance) shall lie about the place of the stoning, and the divinity of the stream is asked to send rain—the rainclouds are symbolised by the dog's colour, seemingly for the divinity's further guidance—in order to wash away the defilement.‡

(iii) In each of the following examples a supernatural being appears, I think, although just what are the relations between the beings and the performances with which they are respectively associated do not seem to be very obvious:—

(i) At Sagami, in a shrine, there is a round stone which is supposed to be the *shintai* (god-body) of a certain Rainfall-god to whom the shrine is dedicated. When rain is wanted, water is poured over this stone.§

(j) Beriberi (*kakke*) is a disease which seems, in Japan, often to be popularly attributed to an excess of water in the sufferer's system, and many of the magical treatments for it appear to be based on the idea of getting rid of the supposed watery excess. In one of the treatments recommended for *kakke*, the patient is to walk three times round a well, carrying a piece of bamboo over his shoulder and reciting a formula (literally, "Bottomless *kakke*, *kakke* as for bottomless") explained to me as signifying "*Kakke*, run through my body as though there were nothing to stop you" [recorded at Yokohama]. It is possible that the introduction of the well into this *majinai* may be due to some supposed sympathetic connection between the water of the well and that of the disease, or to some idea that the patient's excess of water shall run into the well. I think, however, that it is much more likely that the marching round the well is intended as a means of appeal to the god of the well, because the intervention of a Well-god is very frequently sought in Japan for the relief of an illness or of some other bodily trouble—and in the case of an illness thought to be caused by water an appeal to a Water-god would seem

* Another in'ury-*majinai*, formerly in use, but less commonly, in the same district, consisted in making a small puppet, roughly formed of straw, sticking a great quantity of pins into it (so that no part remained uninjured) and simultaneously cursing the intended victim, and finally burying it in the ground. These operations also had to be conducted in the utmost secrecy. A Yokohama practice of a similar kind, lately reported to me, consists in the sticking of a *needle* into a likeness—an image or a picture—of the intended victim, in order to cause him to suffer. Why the implement of injury must be a *needle* instead of any other suitable pointed object my informant was unable to tell me, but the numerous Japanese *majinai* for various purposes in which a needle is mentioned, and certain beliefs and practices connected with needles, lead me to think that possibly the instrument in this case is regarded as serving in some manner as some sort of a conscious agent.

† I have also suggested (*loc. cit.*) that a certain *majinai* for catching a runaway, consisting in the nailing of a shoe of the victim in front of the kitchen furnace, may not improbably be based on similar conceptions.

‡ Weston, *op. cit.*, p. 162.

§ Aston, *op. cit.*, p. 330.

to be even more to be expected than in the cases of, say, small-pox, or a sty on the eyelid, or the changing of the sex of an unborn child. The carrying of the piece of bamboo—a material commonly used for making water-pipes in Japan—would thus appear to be a method for expressing symbolically to the divinity of the well the desire expressed verbally in the formula recited during the performance.

(k) If a marriage has been unfruitful, the old women of the neighbourhood, on the occasion of the festival of the Sahe no kami, certain phallic divinities, go through the form of delivering the wife of a child, using a doll to represent the infant.* Various ceremonies are performed, in different parts of Japan, at the time of this festival, in connection with the propagation of children. I think it is possible that the date mentioned has been selected as especially suitable for the mimetic delivery in question, because the Sahe no kami are more likely to be present at that time than at any other, and that the performance is intended as a means for indicating to them the patient's need. We may note, in passing, that a childless wife is sometimes given by her friends, on occasions when presents are customary, a doll, as a ceremonial expression of a wish (or perhaps as a form of magic) that she shall bear a child.

(l) Formerly, on the twentieth day of the tenth month, at a celebration held by merchants and shopkeepers under the patronage of Ebisu, "God of Wealth and guardian of markets," a picture of the god was hung at one end of the room in which the celebration took place, offerings of food and of drink were put before it, and mock sales were carried on amongst the participants in the celebration, these sales being intended to cause success in the future real transactions of the persons taking part in them.†

If, as seems to be shown by some, if not by all, of the above examples, certain actions are performed with the express intention of conveying symbolically to some supernatural being the operator's desires, it seems highly probable that other actions will be avoided for fear lest some supernatural being witnessing those actions may be led to cause undesired occurrences which may be assumed to be symbolized by those actions, or, if he be normally protective, may at least be led to permit malevolent supernatural beings to cause such occurrences—that is, it seems probable that certain taboos have been based upon the principle which seems to underlie the examples of positive magic which have been described above. Although I am not at present able to cite any examples of taboos which have been given me as so based, I feel sure that, in view of the multitude of supernatural beings in whose actual presences the Japanese of former days believed himself constantly to move—some of whom (unless offended) he thought would shield him from harm, others of whom he feared—such taboos exist. The taboos upon certain so-called "ill-omened" actions or words during certain periods, such as those connected in some way with the dead, or at night, or at the beginning of the New Year, may, I think, sometimes thus be explained, and all the more logically when we recall that even at the present time evils of all kinds are by many persons regarded as due to the malevolent actions of supernatural beings.

W. L. HILDBURGH.

Anthropology.

MacRitchie.

A Red Indian Coiffure. By David MacRitchie.

In all those instances where the remnants of the Red Indian tribes of North America have ceased to live the Indian life, and have been brought under the controlling influence of white civilization, they have more and more abandoned

* *Ibid.*, p. 331.

† E. W. Clement, "Japanese Calendars," in *Trans. Asiatic Soc. of Japan*, Vol. XXX, pp. 52. 53; quoted from "The Japanese Months."

their ancestral customs, until, in some cases, these have disappeared altogether. It is, therefore, of importance that any obsolete or obsolescent custom should be recorded while it is possible. An extremely interesting characteristic of the Wasaji or Osage Indians that has come prominently before me has now probably reached the stage when all memory of it will soon be forgotten by these people themselves.

Mr. George A. Dorsey, Curator, Department of Anthropology, Field Columbian Museum, Chicago, in the brief Preface to his *Traditions of the Osage* (No. 88 of the Field Columbian Museum's Publications, Chicago, February 1904), remarks as follows:—"The Osage are of Siouan stock, and made their home, when first known to the whites, in southern Missouri, northern Arkansas, and eastern Kansas. In 1871 they were removed to a reservation in the north-eastern corner of Oklahoma, which they still [1904] occupy. They are degenerating rapidly, are very lazy, and much addicted to drink; the use of the peyote or mescal [a bitter but intoxicating liquor, brewed from small red berries] among them is rapidly increasing. It must be admitted that this collection of tales does not adequately represent the traditions of the tribe. This is largely due to the difficulty of engaging the attention for any length of time of the old men of the tribe, for reasons above mentioned."

Living as pensioners of the United States, no longer hunters and warriors, but sunk into the condition of artisans and peasant-farmers, with here and there a man or woman of college training and professional career, these Indians are rapidly losing touch with their ancient tribal customs. One of these customs, however, is described in a book which has lately come under my notice, *Life in the Far West*, by George Frederik Ruxton, author of *Travels in Mexico*, &c., published by William Blackwood and Sons, Edinburgh and London, 2nd edition, 1851. Anyone who knows the country and people described can see that the scenes and experiences portrayed in this book are true; although they are strung together by a slender thread of narrative which may be partly fictitious. The following passage, relating to incidents taking place in the year 1830, or thereabouts, occurs at page 73:—

"Passing the Wa-ka-rasha, a well-timbered stream, they met a band of Osages going 'to buffalo.' These Indians, in common with some tribes of the Pawnees, shave the head, with the exception of a ridge from the forehead to the centre of the scalp, which is 'roached' or hogged like the mane of a mule, and stands erect, plastered with unguents, and ornamented with feathers of the hawk and turkey. The naked scalp is often painted in mosaic with black and red, the face with shining vermilion. This band were all naked to the breech-clout, the warmth of the sun having made them throw their dirty blankets from their shoulders."

The above description is specially interesting to me, as I am able to confirm it from personal observation. In the month of February 1873, I was one of an "outfit" of bison-hunters who were operating in the then unsettled region of south-western Kansas, and one day we found ourselves in the neighbourhood of a large camp of Osages. After ascertaining from one of the band, whom we encountered about a quarter of a mile from the camp, that a visit from us would not be resented, a number of us, leaving our weapons in the waggons under the charge of the rest of our party, followed this Indian to the camp. From the number of lodges, or teepees, as well as from the women and children who were largely in evidence, we estimated the total strength of the band at 100 or 150. They were, it appeared, a sub-division of a much larger band, owning the chiefship of "Sunset," a very able leader of some celebrity at the time. Most of the young men were out on the plains after buffalo. The chief was in his lodge, playing cards with some of his braves, and too proud to take any notice of a few casual hunters, unaccredited by the Government at Washington. The women were busy with the usual squaw-work,

some bringing in great bundles of firewood, gathered in the "timber" that fringed the stream; others engaged in dressing buffalo skins, stretched upon stakes, with the pelt undermost. In this occupation, the utensils they employed closely resembled the rake of a croupier at a gambling table, and with them they steadily and gently rubbed the raw hide, over which was spread a moist preparation, said (with what accuracy I know not) to consist largely of deer's brains. The young children were playing about, much as the children of other races do. Several lads of fourteen or fifteen were testing their skill in launching their iron-pointed arrows, in javelin fashion, at a slim sapling, displaying as they did so an almost unerring aim. But what greatly attracted our attention was the seated figure of an Indian, obviously a man of consequence, who was receiving the attention of a barber, armed with a large pair of scissors.

The chief regarded us in disdainful silence, but the barber was much more friendly, and playfully snipped a few hairs from the beard of one of my companions. It seemed quite appropriate that this *coiffeur* should know a little French, and that he should have some French blood in his veins, as I believe was the case. There is nothing surprising in this, for the great plains to the west of the Mississippi were at one time part of the vast territory of Louisiana, and memories of that time are still preserved in numerous place—and tribal—names. The word *prairie* is a permanent record of French influence on these western plains. The main point to be noted, however, is the appearance of this warrior's head. The scalp was shaved on both sides, leaving only a ridge of short, brush-like hair, "hogged like the mane" of a mule, and standing erect," in the words of Ruxton. Ruxton describes this ridge as extending from the forehead to the centre of the scalp. My impression is that, in this instance, it stretched well beyond the coronal suture. The bare portions of the scalp were powdered with vermilion, as were also the cheeks of this personage. With regard to the disposal of the hair at the back of the head, my memory is at fault. Probably it hung in long plaits, after the Indian fashion. But what struck me most forcibly of all was that the stiff, stubby ridge of hair along the crown of the scalp gave quite the effect of a Roman helmet, or of the helmet worn by modern French cuirassiers. Indeed, it is not impossible that the Roman and French helmet obtains this idea from an ancestral custom such as that of the Osages. This is a matter of speculation. The important thing is to chronicle the existence of the custom.

The Osages that I saw in 1873 were genuine "blanket Indians." That is to say, they were practically untouched by white civilization, although they *did* play cards and understood something of the value of dollars. Moreover, they possessed breech-loading rifles of the latest type. Apart from such details, they represented the true wild Indian. They condescended to inform us that they had arranged to make a raid upon the settlements when the grass was "that high"; and although, for some reason, they did not keep their word, they carried out such a raid in the following year. Their representatives to-day wear "store clothes," and are largely occupied in drinking mescal, according to Mr. Dorsey. It is more than probable that the fashion of dressing the hair which I have described is already obsolete.

DAVID MACRITCHIE.

Mathematics.

Migeod.

Supposed Duodecimal System in Burum Language. (See MAN, 470, 1916.) By F. W. H. Migeod.

If the Burum numerals indicate a duodecimal system, it is certainly a most important discovery. I think, though, it may possibly be found that there are errors in the list as supplied to Mr. N. W. Thomas, and these when corrected may modify

the supposed discovery. My own list in *The Languages of West Africa*, Vol. II, p. 374, may also bear revision.

For convenience of reference I give this list :—

- | | |
|----------------------|--------------------------------|
| 1. <i>gwinin</i> . | 7. <i>vitama</i> . |
| 2. <i>beba</i> . | 8. <i>luvit</i> . |
| 3. <i>bitat</i> . | 9. <i>shavitar</i> . |
| 4. <i>binas</i> . | 10. <i>likuru</i> . |
| 5. <i>bitunin</i> . | 11. <i>likuru na agwinin</i> . |
| 6. <i>vichimen</i> . | 12. <i>naveriba</i> . |

(NOTE.—*n* = *ng*.)

From 1 to 5 Thomas and I agree. He has no 6, and the absence of this numeral shows that his informant, the Rev. E. Evans, did not know the language himself, and hence was quite likely to go wrong in some of the other numerals. In 7 we agree. In 8 I have a very strange word, but this is not uncommon to 8 in other languages, as its derivation is very varied. In 9 we agree, for the *vi* in my *sha-vi-tar* is apparently redundant, as it also is in my 12.

Thomas claims *koro* as 12, not 10; but my *likuru*, which is evidently akin to it, is supported by the Bortisu language, which has *kur* for 10. He casts doubts on my 12, but he did not scrutinise it sufficiently, or he would have noticed that it equals *likuru na ve viba*, the word for 10 being very commonly omitted in West African languages. The *ve* is apparently redundant as in 9, being I think the same prefix as the early numerals have. *Viba* equals *beba* of course.

I must here note that the Ga language of the Gold Coast, and some others, use 6 as a base for 7 and 8, *e.g.*, 6 + 1, 6 + 2, instead of 5 + 2 and 5 + 3, as if they had a duodecimal system. They have not, however, but only recognise 10. The unit 12 seems to have lost itself. The looking forward to 12, if I may so describe it, is therefore not entirely strange to West African languages.

In Burum, if there is indeed a duodecimal system, *sha* would mean "less," so *shantad* (in Thomas's) = 12 less 3; *shanbipa* = 12 less 2, &c. Incidentally, however, *sha* in the Hausa numerals means "plus," and a particle *she* in Doai also seems to mean "plus." As, however, these languages, though neighbouring, are distinct, too much must not be insisted on from this resemblance.

In my list the only numeral compounded with *sha* is 9, which being 12 less 3, points to 12 as a unit in the system. That it should represent 6 + 3 is, I think, out of the question, 9 never being known to be so formed. My list, therefore, also seems to give some support to a presumed duodecimal system.

It still remains to deal with *koro* in Thomas's list. This I would wish to make 10, and to set it alongside *shanbipa*, thus making two side-by-side scales, which may be explained as follows. Up to 8 the native progresses uniformly from 1. Arrived there, however, he vacillates. The counting is a strain. He therefore jumps to a dozen and works backwards, accepting, however, 10 as entitled to a separate recognition whenever desirable. Should this suggestion be accepted Thomas has to find a new word for 12, but from the analogy of Ga it may not exist as a simple word, but be merely 10 + 2 compounded in the ordinary way as in my list.

Further light on the subject would be most welcome, and it is to be hoped that some one in Northern Nigeria will supply a correct list early to settle the question.

F. W. H. MIGEOD.

Archæology : Ashanti.

Cardinall.

Stone Implements from Ashanti. By A. W. Cardinall.

The stone implements figured in the accompanying illustrations are from Ashanti, and all were collected within a few weeks. I found the first specimen

myself at Kukuom. Having shown it to the natives, I was told that they were found quite commonly, and soon some thirty specimens had been brought to me. Among these are examples from Kukuom, Mim, Goaso, Fwidiem, Nkassaim, Acherensua, and Boma. This is a wide distribution, and I have been told by the natives that they are found commonly throughout the forest. Those that were not picked up on the surface were found farming or roadmaking, *i.e.*, at a depth of from 1 to 2 feet below the surface, which until cleared is covered by "old" jungle.

Some forty specimens were collected, all except one being ground and polished in the usual neolithic style. The unground implement (Fig. 1) which was found at Wioso differs from the remainder of the collection not only in the character of its surface but in its comparatively large size, its greatest length being about 14.5 cm. and its maximum breadth about 5.5 cm. Although roughly worked and coarsely flaked, so that in general appearance it resembles



FIG. 1.—COARSELY-FLAKED IMPLEMENT WITH GROUND EDGE FROM ASHANTI.

the rougher specimens figured by M. Xavier Stainer from the Congo,* its rounded cutting edge is perfectly distinct, and there is no doubt that this has been produced by grinding.

The other specimens, which have all been carefully finished, fall into two classes, *viz.*, axe heads, and certain transverse-ended tools which above the sloped cutting surfaces are oval or almost



FIG. 2.—GROUND STONE IMPLEMENTS FROM ASHANTI.

These so closely resemble "cold" chisels that I propose to speak of them by this name. The axe heads are of various types, all are rather small, some, including the largest, which is just over 8 cm. long, are almost rectangular

* "L'Age de la Pierre au Congo," *Annales du Musée du Congo*, Tome I, Fasc. I (Brussels) 1899.

in form, others are oval with the edge at the broad end, while a few are unusually stout and thick. Not one of the chisels alluded to above is perfect, but the longest is a trifle over 8 cm. in length, and probably was never much longer; the two other specimens shown in the photograph are 7 cm. and 5.5 cm. respectively.

The example which is represented in the lower right-hand corner of the photograph (Fig. 2) is of special interest from the point of view of the use of these chisels, for although it differs somewhat in appearance, there is little doubt that it belongs to this class. In this specimen the oblique planes which form the cutting edge have been continued the whole length of the stone, to a slight extent flattening its two opposite faces. Its flat top presents that slightly roughened or "pecked" surface which is produced when a stone surface is struck repeatedly by another; in other words, this implement was held as we should hold a cold chisel or graving tool, and repeatedly struck by a hammer stone.

The natives call these stone implements *nyamisoso* and *nyamiakuma* (God's hoes and God's axes), according to their shape. The reason for the names is the belief that the implements fall from heaven, either with the lightning or "falling stars." As a proof of this they say, "Was not a woman killed near Juaso by lightning? " and did we not find in the ground where she fell a *nyamiakuma*?" Further, the stones have medical virtue. Medicines ground with them have increased potency, they protect from lightning and "falling stars," and also give speed to the limbs. And as for the *nyamisoso*, with them God plants the bush yam and often leaves the hoe in the ground.

The specimens figured were found at Wioso, Boma, Nkassaim, Fwidiem, Goaso, Mim, and Acherensua.

A. W. CARDINALL.

Navigation.

Hedley.

Transport of the Coco-nut Across the Pacific Ocean. By Charles Hedley. **6**

The wanderings of an illiterate people, unacquainted with metals, leave few records decipherable in after centuries. Perhaps their route may be indicated by ornaments or utensils from a rifled grave. But if such a people were agriculturists while they kept to one climatic zone, the plants they introduced may still grow, the witnesses of otherwise forgotten journeys.

Such a history, one of daring exploration performed thousands of years ago, is now conveyed to us by the coco-nut palm. A fascinating story concerning it has been pieced together from botanical and historical sources and related by Mr. O. F. Cook.* After disproving and rejecting statements and conclusions generally current, he interprets the evidence afresh. He now shows that this plant originated in America, was there cultivated, transferred to visitors from the Pacific Islands, and by them carried across to Asia. His writings do not seem to have attracted the attention that they deserve from ethnologists, though known to and appreciated by botanists, to whom they were in the first instance addressed. An outline of his views is now submitted for the consideration of another circle.

No botanist has yet found the coco-nut growing as a wild plant, thus its original home must be inferred from deductive reasoning. Examining the origin of cultivated plants, De Candolle found a problem in the case of the coco-nut which he could not satisfactorily solve. In Sanskrit literature the coco-nut is described as cultivated in Ceylon 2,000 years ago. To be precise, the date given by Tennent (Tennent, *Ceylon*, I, 1859, p. 436) is B.C. 161. On the assumption that Columbus, in 1492, was the

* O. F. Cook—*The Origin and Distribution of the Cocoa-Palm: Contributions from the U.S. National Herbarium*, Vol. VII, No. 2, 1901, pp. 259-293. Id.—*History of the Coco-nut Palm in America*, op. cit. Vol. XV, Part 2, 1910, pp. 272-342.

first sailor to reach tropical America from the outside world, this early record of Asiatic culture appears incompatible with an American origin.

Yet all the other members—eleven species—of the genus *Cocos* are confined to tropical South America. Not only so, but all the botanical family to which this palm belongs, the *Cocaceæ*, embracing twenty genera and 200 species, are confined (with the doubtful exception of the African oil-palm) to South America. This to a biologist, trained in belief of evolution by descent with modification, is in itself convincing evidence that the coco-nut palm is also American. The earliest Spanish writers make frequent reference to coco-nuts cultivated at Port Rico, in Brazil, and Columbia. The trees they saw were tall enough to have been planted before the conquest. The large Indian nuts which Columbus observed in Cuba were probably coco-nuts. Not only the coco-nut, but other indigenous palms such as the peach palm, cabbage palm, and wine palm, were cultivated by the Indians.

Popular and poetical illusions have misrepresented the spread of the coco-nut in the Pacific. Drifting nuts were believed to float from island to island and to grow without care where the waves fling them on the beach. But actually the coco-nut fails to establish itself on an open beach.* Where planted and then left alone, they are smothered by the surrounding native vegetation and perish. Even when established in number and reared to maturity they die out in depopulated areas. So thoroughly is the coco-nut domesticated that it is as dependent on man for its existence as any pet animal. Throughout the tropics of the Indian and Pacific Oceans the boundary between lands where the coco-nut did or did not grow was the boundary between the people who did and those who did not make gardens. For instance, the coast of tropical Australia was bare of these palms, though the opposite coast of New Guinea was fringed with them.

The sweet-potato was found by the first European explorers in the possession of every Polynesian people. This also was a native of South America, and must have been acquired in the same way as the coco-nut.

When the Polynesians first landed at Panama or Guaquil, it was for them, as afterwards for the Europeans, a New World. Many were the novelties of fruit and flowers offered to them. From among such riches the visitors chose the coco-nuts as the best gift for a deep-sea sailor. These travellers appreciated their value as bottled drink and preserved provisions, hermetically sealed in handy vermin-proof packages. Henceforth the captain who carried a store of coco-nuts for a long sea voyage need not fear starvation.

Naturally they planted these precious nuts in their own islands for future use. And then from people to people the nuts passed along the main trade routes before the wind, till they reached the opposite continent. As the speed of a falling stone gathers more speed, so the uses of a useful plant may gather more uses as it goes abroad. For each people will hand the plant to their neighbours with the uses learnt from earlier owners, together with the uses invented by themselves. Thus the coco-nut first supplied food and drink. Subsequently its fibre was utilised, and not till half the Pacific had been traversed did it yield sugar and alcohol.

So the distribution of the coco-nut tells a tale of brown mariners who in skill and daring surpassed the feats of the Vikings; a tale of shipwrights who built ocean-going vessels without the aid of metal tools; of navigators who steered these ships across the open sea without sextant, chart, or compass; of adventurers who traversed the whole breadth of the Pacific more than a thousand years before Magellan.

CHARLES HEDLEY.

* When I was in Murray Island, Torres Straits, in 1889, a native took me to see a coco-nut palm which had sprung from a nut that had been washed up on the beach, without having been definitely planted. He regarded it as a very great curiosity.—A. C. Haddon.

New Zealand.

Best.

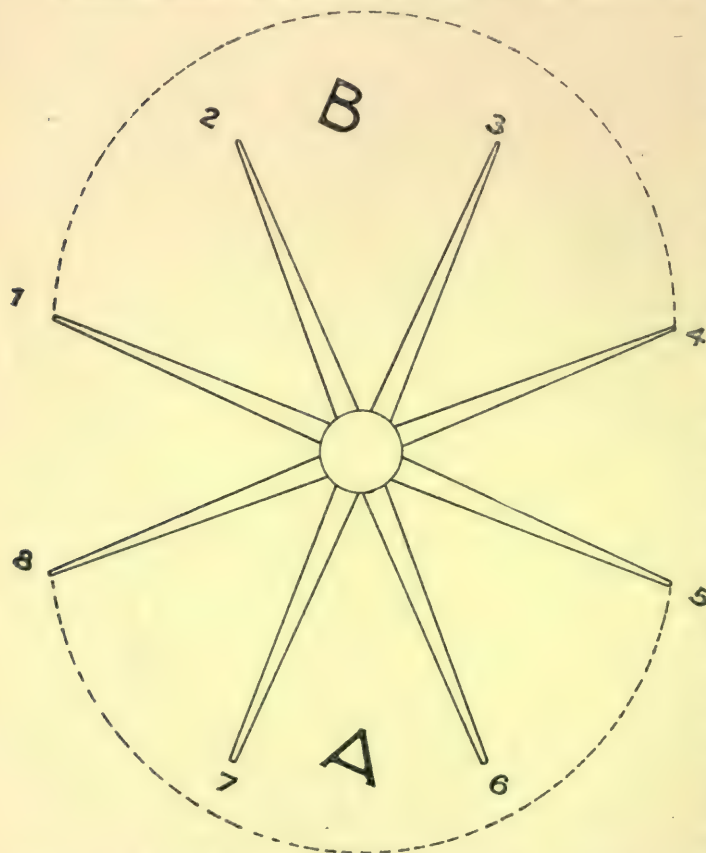
Notes on a Peculiar Game resembling Draughts played by the Maori Folk of New Zealand. By Elsdon Best. **7**

On the east coast of the North Island of New Zealand lies the territory of the Ngati-Porou tribe, descendants of the eponymic ancestor, Porou-rangi. These natives have ever been among the most advanced of our aboriginal classes in regard to Maori industries, especially such as betokened artistic taste, as house building, wood carving, and textile manufactures. They are also included among the descendants of the Takitimu immigrants from Polynesia, who have preserved fuller accounts of tribal traditions and ancient ritual than any other division of the Maori people, so far as we know.

Among these folk has been conserved the knowledge of a game known as

mu torere, formerly practised by them, and indeed played until recent times—until as late as the sixties of last century. Like nearly all the old Maori games, it has now fallen into disuse.

The writer obtained particulars of this game from the late Tuta Nihoniho, formerly an officer in the Ngati-Porou Native Contingent, but was somewhat sceptical as to its being a genuine old native game of pre-European times, that is to say, prior to the arrival of Europeans on these shores. Since that time, however, inquiries have been made of an old man named Mohi Turei, a



member of Ngati-Porou, who died recently at about ninety years of age. Mohi maintained that it was an old-time Maori game, and quoted an old saying in proof thereof: *E mu torere mai ana ranei koutou ki au, e hoa ma!* "O friends! Are you playing *mu torere* against me?" i.e., Are you striving against me? This proof does not seem to be very conclusive, but, as seen by the diagram, the board used is so different from that employed by us that one can scarcely believe that the game was adapted from the introduced European game of draughts. We know that the latter was quite unknown here, and that, when introduced by early European visitors, it was eagerly borrowed by the Maori and quickly became known all over the country. The Maori called this new game *mu*, possibly after his own game, but many of us have thought that it was so named from the sound of our English word "move,"

so frequently ejaculated by draughts players. Against this theory may be mentioned the fact that a form of draughts played among the natives of the Hawaiian or Sandwich Islands, and said to be a pre-European usage, was known as *mu*, also as *konane*.

The following is a description of the game of *mu torere*, as played formerly :—The diagram, marked on a piece of plank, or the smooth inner surface of a piece of bark, resembles an eight-rayed star. These rays are called *kawai* (tentacles or arms), the open circular space from which they radiate is termed the *putahi*. Two persons play the game, each having four *perepere* or men, which are arranged on the outer extremities of the *Kawai* or rays. Moves can be made only to the numbered points or to the central space (*putahi*), and no jumping of an occupied point is allowed; moves must be made to an adjacent unoccupied point or to the unoccupied centre. There is no taking or crowning of men, the game being a matter of blocking an opponent.

The following is a sample game :—*B* arranges his four men on points 1, 2, 3, 4. *A* arranges his on 5, 6, 7, 8. *A* opens the game, but cannot do so by moving 6 or 7, which are *tapu* (prohibited) at this opening stage, in order to avoid a deadlock. He can move 5 or 8 to the centre, and thus he moves 5 to that spot. *B* moves 4 to 5. *A* moves centre to 4. *B* moves 3 to centre. *A* moves 4 to 3. *B* moves centre to 4. *A* moves 3 to centre. *B* moves 2 to 3. *A* moves centre to 2. *B* moves 4 to centre. Now *A* finds himself *piro* or “out,” and *B* has won, for *A* is blocked and unable to move, *B* having his men on 1, 3, 5, and centre, while *A*, occupying 2, 6, 7, and 8, is hemmed in, and must capitulate.

The writer is not a draughts player, and has made no study of this game of *mu torere* but is much interested in the question of its origin. Popular games are persistent and intrusive, hence if this is an old Maori game it should be known in all parts of this small land, whereas knowledge of it seems to be confined to a small part of the east coast, from about East Cape to Poverty Bay. If derived from or based on our game of draughts, why should the diagram or board have been altered by those who adapted it. Also we know that draughts was eagerly borrowed when introduced early in last century, and played as among us. It has occurred to the writer that a similar game to *mu torere* may be practised by some nation other than English, and by some chance have been introduced here, at one place, at some recent time. Any information tending to throw light on this matter will be welcomed.

ELSDON BEST.

REVIEWS.

Central America: Archæology.

Joyce.

Central American and West Indian Archæology, being an Introduction to the Archæology of the States of Nicaragua, Costa Rica, Panama, and the West Indies. By T. A. Joyce, M.A. 263 pp. With many Illustrations and 2 Maps. 1916. Philip Lee Warner. 12s. 6d. net.

This recently issued and very welcome volume by Mr. T. A. Joyce is the third of a noteworthy triad. The previous volumes on *Mexican Archæology* and *South American Archæology* deal ably and clearly with the pre-Columbian history, arts, and customs of the Mexican and Mayan peoples on the one hand, and those of the South American peoples on the other hand.

The present volume completes the series by filling the hiatus between those two geographical areas, and serves as a link between them, both geographically and ethnologically. In the first portion the early culture of Central America is considered in detail, the area in question embracing Nicaragua, Costa Rica, and Panama. The second portion deals with the West Indian Islands. The general lines of the

earlier volumes are followed, and the uniformity, both in theme and treatment, is a valuable feature in this very useful series of handbooks. The difficult ethnological diagnosis of Central America is discreetly dealt with, cautiously yet on the whole convincingly; and the material and social culture of the several ethnic divisions are described in an efficient and interesting manner. The bringing together in readable form of the available material from this region will be warmly welcomed, since a general comparative study of the ethnology and archæology of Central America has been greatly wanted. Mr. Joyce has diligently collected and systematically collated the evidence derivable from both literature and specimens, and he enables his readers to acquire a grasp of many of the problems involved which hitherto have remained obscure.

The area with which the book is concerned is essentially a linking one, and just as *geographically* it unites the northern and southern continents of the New World, so, too, *ethnologically*, it is an area of fusion, where the Mexican and Mayan cultures pushing southward met and were influenced by the northerly extension of South American culture. One of the chief objects of the book is to differentiate and evaluate the elements which suggest in the Central American culture-complex northern or southern affinities, and by a careful study of the effects of inter-tribal relationships, and of the influence of early commercial intercourse, the author has done much towards analysing the more or less hybrid cultures of the region.

Nicaragua and North-East Costa Rica are treated together, and evidence is offered pointing to cultural affinities with the north (whether these are in the main due to Mexican or to Mayan influence is not yet clear), as exhibited by certain features observable in the stone-carving and pottery. It is noted that a Nahuatl-speaking branch of the Nicaraos even penetrated as far as and established itself in the region to the west of the Chiriqui Lagoon. On the other hand, it would appear that the gold-working industry and certain special practices were derived from Panama and the south.

In Central Costa Rica southern cultural affinities are strongly in evidence, as might be expected in an area where a southern linguistic stock prevailed. In the Guetar region, which, archæologically, is relatively well-known, there are signs that Chorotegan ideas met and modified the Chiriquian (Talamancan), the evidence helping towards establishing a culture-link between Nicaragua and Panama.

Southern Costa Rica and Panama are associated together, partly on linguistic grounds and partly on account of their general culture being of distinctly South American (mainly Columbian) type, though even here some of the effects of culture-contact with the north may be noted.

The whole Central American region presents great complications, and Mr. Joyce has done yeoman service in his endeavour to disentangle the confused elements. He has dealt with the various arts and customs individually with much critical discernment, but, as he readily admits, our knowledge of the region is scanty, and the spade will have to be busy for a long while ere it will be possible to arrive at any final conclusions.

The problem in the West Indies is a simpler one. Here we are concerned with almost pure South American culture elements, transmitted to the islands by two main waves of immigration. The earlier Arawak (Tainan) immigrants peopled the whole of the group, including the Bahamas, and they were largely overrun by a later invasion of Caribs, who occupied the Lesser Antilles and partly exterminated, partly absorbed, the Arawakan population of the south-eastern group of islands. The Tainans were able to maintain themselves in the Greater Antilles and in the Bahamas, whither the Caribs were unable effectively to penetrate.

The evidence in the West Indies of culture-contact with Central American

civilisations is exceedingly scanty, a fact which is remarkable in view of the proximity of Western Cuba to Yucatan. One looks almost in vain, too, for signs of North American influence having reached the Bahamas and the Greater Antilles *viâ* Florida, and it would appear that, as a whole, West Indian early culture, while exhibiting traces of South American origin, must have developed and become specialised to a remarkable degree indigenously. Still, archæological research in the islands has been so far too limited to warrant any conclusive views, and further investigation is greatly needed.

Mr. Joyce makes numerous interesting suggestions as to the evolution of decorative designs, and as to the derivation of peculiar forms. The diagnosis which he gives of the celebrated "stone collars" of the Antilles, referring them to a wooden prototype, is extremely plausible. Pottery is discussed at considerable length, and is much used as evidence of cultural affinities. Occasionally, slight ambiguities occur in the descriptions, as, for instance, in his account of the "lost colour" ware of Chiriqui, in which he describes how the design on the vessels was first traced in wax, and the whole pot was then covered with black pigment and subsequently boiled. He adds: "By this process the black is removed from the waxed portions, and the design appears reserved in the ground-colour." Now, since the whole point of this stopping-out process is to prevent the pigment from reaching the portions which are coated with wax, it is somewhat misleading to speak of the black having been *removed* from areas which it has not been allowed to reach. Such slips are, however, rare, and the book is well-written and very readable. The points discussed are judicially argued with cautious reserve. Mr. Joyce does not discuss the possibility of exotic influence upon the culture of the region from far-distant sources, and, perhaps advisedly, he makes no reference to the Phœnicians and their peregrinations.

The illustrations in the book are numerous and excellent. Incidentally they bear testimony to the richness of the Central American and West Indian sections of the British Museum. The index is less satisfying, and does scant justice to so useful a book of reference; very many important details are omitted from it. A bibliography is added in an appendix. The author is to be congratulated upon the way in which he has achieved the difficult and useful task upon which he embarked, and his latest volume may be recommended as strongly as the previous ones.

HENRY BALFOUR.

Ashanti.

Rattray.

Ashanti Proverbs: The Primitive Ethics of a Savage People. Translated from the original, with grammatical and anthropological notes. By R. Sutherland Rattray, F.R.G.S., F.R.A.I. With a Preface by Sir Hugh Clifford, K.C.M.G. 9

The Ashanti of the Gold Coast hinterland are obviously a people with a past. Linguistically, they only form one of the members of the widespread Agni language family, which extends from the eastern Gold Coast and the neighbourhood of the Volta River westwards across half the French Ivory Coast. This language-family—especially as evidenced by the Twi or Ashanti tongue, has a very decided Bantu flavour about it—semi-Bantu, at any rate—and would seem, from the scanty information we possess, to be connected with the language—or one of the languages—of the Barba in the country of Borgu, on or close to the River Niger. To make this derivation absolutely certain we require more linguistic information than we at present possess concerning the special interesting languages along the course of the Niger above the Benue confluence. Our only vocabulary of Barba, so far as I am aware, is the one recorded by Koelle in his *Polyglotta Africana*. But seeing the remarkable accuracy with which Koelle transcribed all his other vocabularies which

have been put to the test by modern information, there is no reason to suppose that he erred either in the form which he gave to Barba or in its geographical locality. This being the case, we are able further to connect the Ashanti people (more, perhaps, than the rest of the Agni group) with the semi-Bantu languages of the Kaduna Basin, east of the main Niger. These again are obviously related (to speak now of information not yet published) to the semi-Bantu of the Bauchi highlands and the central Benue basin. It would therefore seem probable that the ancestors of the Ashanti came from the Niger basin and pursued a west-south-westerly course. They differ in so many respects from the more typically negro coast tribes of the Gold Coast and Ivory Coast that the language connection between them may be due to the imposition on these folk of Ashanti or Agni dialects, and the more ancient and preceding language type of the Gold Coast littoral may probably be the Gā family, still spoken in the Akra district. It is probable, therefore, that in the folk-lore wisdom and semi-civilisation of the Ashanti we have some of that comparatively ancient Nigerian influence which has spread so widely over forested Negro Africa, the Nigerian influence itself being, of course, derived still more anciently from either Egypt or North Africa in successive waves of penetration by Mediterranean men and Mediterranean ideas. Nothing whatever in the book under review lends any further colour to the less acceptable theory that the arts and crafts and semi-civilisation of the Gold Coast (which decidedly existed prior to the arrival of the Portuguese) owed their origin to any Carthaginian influence coming by sea around the west coast of Africa. If there was any Carthaginian intercourse with the gold-bearing regions of the inner Gold Coast, it was simply a part of that comparatively ancient Trans-Saharan intercourse which no doubt has subsisted in an intermittent fashion from Neolithic times onwards.

Mr. Rattray's book, though it only runs to just under two hundred pages, is an important African document. It really contains an epitome of the mental shrewdness, the wisdom-learned-by-experience, of the semi-civilised negro. Each proverb is given a literal and literary translation into English, and then commented on from the philological and ethnological points of view. In this way we get a great deal of accurate information regarding the religious ideas, the classificatory system of relationships, the implements, ancient and modern, the totems, the ideas about animals, the morals, and the physical traits of the Ashanti. This book is at the opposite pole of the somewhat amateurish character of most "standard" works on the Gold Coast peoples. The author himself gives a rather good definition of the slipshod writing which too often passes current, especially with the average reviewer, for truth and wisdom regarding African studies. Referring to the writings of the late Major Ellis, who at one time was Governor of the Gold Coast (and who, nevertheless, must be credited with having done that region much service with his pen), he says: "The first credentials the present writer would ask of anyone who was advancing an opinion, as the result of independent research into native customs and beliefs . . . would be the state of proficiency that the investigator had acquired in the language of the people whose religions and beliefs he was attempting to reveal . . . the standard he would ask would be a high one. Had the investigator real colloquial knowledge of the language of the people whose inner soul he was endeavouring to lay bare? Such a knowledge as is gained only after years of arduous study and close intercourse, a knowledge which would enable the possessor to exchange jokes and quips and current slang and join in a discourse in which some dozen voices are all yelling at once. Such a knowledge of a language is a very different thing from an academic acquaintance with it which might fit the possessor to write an excellent grammar. . . . Judged by such a standard the late Major Ellis must have been found wanting." And

judged by such a standard, without any consideration as to whether they may or may not have had in politics pro-German proclivities, Mr. Rattray rightly exalts for our admiration the late Rev. J. G. Christaller and others of his colleagues amongst the Basel missionaries in the Gold Coast territories. This contention arises in connection with the original idea of the Supreme God (*Onyame*). Major Ellis contended, against the opinion of the Basel missionaries, that this was an idea derived from the outside world—Christian or Muhammadan. Mr. Rattray takes the opposite view, and his reviewer agrees with him, though not in the derivation of the word. It is very probable, owing to interlinking forms (*Nyambe*, &c.) that the *Onyame* of the Ashanti came with them from the semi-Bantu regions of Eastern Nigeria, whence likewise it travelled in other directions right into the heart of Bantu Africa. The conception of a Supreme or Sky God in negro minds, at any rate in those that speak Bantu languages, must go back into very remote antiquity, and begins with the conception of an Old Man in the Sky whose voice is the thunder, whose weapon is the lightning, and whose benefaction is the rain.

It augurs well for our colonial service in Africa that it should number increasingly amongst its members trained anthropologists like Mr. Rattray, Mr. Commissioner Hobley, Captain Orde-Browne, Captain Stigand, Mr. Amaury Talbot, and many others whose works are from time to time reviewed by the Royal Anthropological Institute.

H. H. JOHNSTON.

Anthropology.

Scott Elliot.

Prehistoric Man and his Story: a Sketch of the History of Mankind from the Earliest Times. By G. F. Scott Elliot, M.A., B.Sc. London: Seeley, Service and Co., Ltd. 1915. 7s. 6d. net. **10**

There are some books—and this is one of them—which tempt the reviewer to shirk his responsibilities by bestowing the damnation of faint praise. The author has been betrayed by his own industry, and has produced a book which will make extraordinary demands on the “ordinary educated reader” for whom he writes. He admits that “no one, however omnivorous his reading, could possibly learn and “digest all the available literature” of the problems bearing upon the science of anthropology. Unfortunately, he has made a brave attempt, and the reader becomes an accomplice in the process of digestion. Far too much detail is given, and the author’s attempt “to keep the main outline clear and consecutive” must be judged to have broken down—perhaps partly because he has endeavoured “to avoid repeating “what has already been given in full detail in books of the same nature.”

In his style Prof. Elliot shows himself to be experienced in the art of popularisation, but one is disposed to be sceptical as to the value of some of his more picturesque imaginings—such, for example, as the word-film depicting the histrionic behaviour of *Pithecanthropus* (♀) when menaced by a hungry carnivore in the wilds of Pliocene Java; or the peep into the nest containing the “Titian red or bronze babies” of our Pliocene precursor. At times, also, there is a flimsiness about his speculations which detracts from their interest: “One naturally wonders if a sort “of genealogical lemur-monkey-man could have lived on the Eocene coast-line.” Some sort of an ancestor there no doubt was, since we are here. *Homosimius precursor*, for the Oligocene and Miocene ancestor, does not commit us to much, and he may have made the “eoliths” of those periods, or he may not. The author fails to seize the opportunity of giving to Pliocene man the desirable name of *Homosimius rostro-carinatus*, which appears to be still at large. We may note incidentally that the “eoliths” are accepted *en bloc*—though only as a working hypothesis—with the support of at least one argument of engaging simplicity: “Surely, also, if there is “little to prove that eoliths were made by man, there is even less to convince us

"that they were formed in any other way." Mr. Elliot has his moments of scepticism, however: "Moreover, there were neither cartwheels nor cement mills in the Miocene."

The early history of man offers such unrivalled opportunities for the exercise of the uncritical faculty that authorities, as well as facts, require some selection. The author has not always been fortunate in his choice, although he has "preferred" foreign authorities, as being less accessible to the general reader." There are, however, errors and misconceptions for which the authorities cannot be held responsible. The incorrect statement is made (p. 104) that the split stick and rattan "fibre" (for fire-making) of the Tapiro is very similar to the ploughing method. The Zulus are referred to (p. 239) as of "pure negro race." Cephalic indices are given on p. 144 as so much *per cent.* Pliocene man may have had extremely large teeth, "often with five roots to them," but one would like to know how often and which. Amongst implements of "eolithic" character found with the Piltdown skull (p. 126) "one is a very early type of borer which may have been used to prepare spears, to skin animals, or to split marrow-bones." Eoliths are notoriously versatile, and it matters little what the types are called, but surely an eolithic borer should be credited with at least the desire to bore. The author has failed to keep pace with the increasing (official) cranial capacity of Piltdown man, which he gives as 1,070 cc. (p. 128), though he quotes 1,500 cc., in a note, as Prof. Keith's estimate. He also attributes the restoration of the lower jaw to Dr. Elliot Smith.

There is no lack of confidence in Mr. Elliot's solutions of some of the problems of anthropology. Thus (p. 338), ". . . the modern European is, on the view" which we have adopted here, just a mixture in varying proportions of the three "types—Cromagnon, Furfooz (with later brachycephalic introductions), and Mediterranean." Very drastic is the following (p. 389): "In such a community as the Arunta anything would soon become involved in a mass of mystical awe-inspiring nonsense." There is a suggestion of frightfulness about this solution which may perhaps be due to one of Mr. Elliot's German authorities.

In spite of the defects of the book, it embodies the result of much literary research, and contains a great accumulation of facts, presented in an interesting manner. There are few men who could deal with so many subjects with complete success, and if the author has not written the book he projected, he has failed through excess, and not through want of enterprise.

The scheme of illustration cannot be commended.

H. S. H.

Africa: Linguistics.

Werner.

The Language-Families of Africa. By A. Werner. Society for Promoting Christian Knowledge. London: 1915.

11

In this small book of 150 pages Miss Werner has given a valuable and instructive account of the present position of African linguistic problems. A brief historical sketch of the progress of knowledge and of early attempts at classification, with a description of the main features of isolating, agglutinating, and inflectional languages serve as introduction to the author's classification of the African languages. Five divisions are recognised: (1) The Sudan family, isolating; (2) The Bantu family, agglutinating; (3) the Hamitic family, inflectional; (4) the Bushman group, doubtful at present; (5) the Semitic family, inflectional. In the general discussion of these which follows, the principal characteristics of each division are set forth, and an account is given of African sounds.

Here a strong plea is put forward for the adoption of the script of the International Phonetic Association. A table is given of the alphabet, and the author suggests that this should be used by missionary societies and collectors of African

languages in place of the *Standard Alphabet* of Lepsius, as remodelled by Meinhof, and generally used by German missionaries and students everywhere. Of Meinhof's system she says: "It is, perhaps, open to some objections which I need not discuss here; the greatest of all is the impossibility of making it universal in this country, and, that being so, the effort to introduce it at all seems little better than a waste of labour." Miss Werner has here lost sight of the fact that owing to the enormous amount of linguistic literature of German authorship it seems almost equally impossible to substitute the International system for the German. In England linguistics can hardly be said to be an organised study, and there is, comparatively speaking, very little research work carried on. Those English writers who have dealt most fully with African languages—Bleek, Steere, Ellis, Johnston, Thomas—each use a different script, whilst the writing of sounds by the Germans—Meinhof, Westermann, Struck—is fairly uniform.

A chapter is devoted to each of the five divisions of African languages. Miss Werner's examples of languages belonging to the Sudanian family (Sudanic?) are mainly those set forth in Westermann's *Sudansprachen*, i.e., the Ewe, Tshi, Ga, Yoruba, and Efik of the west, and the Kunama, Nuba, and Dinka of the east. The remaining languages of Negroland, which he includes by inference in the Sudan family, such as the Wolof, Mande, Bulom, Temne, Songhai, Munshi, and Jukum, are dismissed in a couple of paragraphs, though their differences from the type illustrated in Westermann's book, a difference which he himself recognised, merit a somewhat fuller account.

In the chapter on the Bantu family Miss Werner has less exclusively followed one author, and has given a very good outline of the main features of Bantu grammar.

Meinhof has been accepted as the guide to the Hamitic languages, and the Masai, Hausa, and Nama are included with them. In a chapter on "The Key to the Bantu Languages" the Ful language is somewhat fully discussed in its relation to others, the writer apparently agreeing with Meinhof as to it being a possible link between the Hamitic and Bantu.

The Bushman languages are the subject of an interesting historical and descriptive chapter. The Semitic languages are very briefly described.

The book has an introductory note by the Reader in Phonetics in London University on the importance of phonetics in teaching African languages. It is convenient in size and well printed, and contains a map and short bibliography. It will certainly prove of much service to those commencing the study of any African language.

SIDNEY H. RAY.

Ethnology.

Howley.

The Beothuks or Red Indians, the Aboriginal Inhabitants of Newfoundland. By James P. Howley, F.G.S. Cambridge: University Press. 1915.

12

The Beothuks, as is well known to all Anthropologists, are, like the Tasmanians, an extinct people, and, again like them, have caused no end of discussion concerning their position in the ethnology of their respective regions. It is, therefore, with no little pleasure that we take up a new book of almost 350 pages on them. However, this book does not contain that much new material, for it is partly made up of reprints of well-known papers on the Beothuks, partly of reprinted inaccessible, or nearly inaccessible, papers, and partly of manuscripts hitherto unpublished, and partly of original investigations. Mr. Howley says: "For the past forty years I have endeavoured to gather from every available source all possible information bearing upon this subject," and this describes the book in a nutshell. Mr. Howley does not divide his subject into History, Archæology, Ethnology, or any similar grouping,

but into centuries. This division, which on first thought would seem to be unsatisfactory, succeeds very well for the earlier centuries, but not so well for the later ones, for the nineteenth century occupies more than three-quarters of the book, and the eighteenth takes up more space than all the preceding centuries. By far the most important of the earlier documents which he prints is one by Lieutenant John Cartwright, afterwards Major. This contains some excellent ethnological material not before accessible. It is to be regretted that Mr. Howley does not state where he got this account of Cartwright's, but I presume that it is an unpublished manuscript. The account given by Lieutenant Buchan of his trip to the Beothuk country also contains some fairly good material. This too, I presume, hitherto existed only in manuscript. The book also contains a reprint of "Cormack's Journey Across Newfoundland," which was quite rare but very important. I am sure we are all glad this is now made readily accessible.

Of little value, however, from an ethnological point of view are the many letters and minute accounts of the transactions of the various societies, but, on the other hand, a short account of the "Life and Culture of the Beothuks," by Cormack, which had previously only existed in manuscript, is of the utmost importance.

Mr. Howley's original contributions consist of some rather interesting traditions about the Beothuks, which throw, however, no new light on their ethnology, and the reports of some archæological finds which are quite interesting, and were apparently carefully made and reported. Mr. Howley's discussion of the origin, language, and physical anthropology of the Beothuks, sheds no new light on those topics.

Two of the most valuable things in the book are the reproduction of Shanarodith's drawings and twenty-seven excellent plates of the implements, archæological find, and reproductions of illustrations from earlier books.

In conclusion, although the book does not give us much new information on the Beothuks, which indeed would be impossible at this late date, nevertheless it gives us some unpublished material and makes accessible the already published material.

I am sure Mr. Howley deserves a great deal of credit for his long labours in collecting all the available material, and giving it in very convenient form to the public. From now on we may consider, as far as descriptive material goes, that the work on the Beothuks is complete. The interpretation and comparison of this material remains for the future ethnologist, when the work on the surrounding tribes will have been completed.

WILLIAM H. MECHLING.

India: Anthropology.

Russell.

Tribes and Castes of the Central Provinces. By R. V. Russell, I.C.S. (assisted by R. B. Hirā Lāl). 4 Vols. Macmillan and Co. 1916.

13

The appearance of these volumes was accompanied by the announcement of the death of Mr. R. V. Russell, who was lost in the P. and O. liner, "Persia," torpedoed in the Mediterranean in the early part of this year. Mr. Russell was one of the latest and most successful students of the races of India, and his loss is greatly to be deplored. It was due to the adoption by a nation, still claiming to be civilized, of a barbarous system of attacks on peaceful passenger ships.

Mr. Russell was on his way back to India from England, where he had been on sick leave for some time. During this period he prepared and saw through the press the volumes now under consideration, which have been published for the Government of the Central Provinces of India.

The first volume may be called introductory in the broadest sense of the term, containing, as it does, a comprehensive essay on Caste which extends over 197 pages, and a series of articles (alphabetically arranged) on the Religions and Sects of the

Central Provinces, the greater part of which is of value for the whole of India, and not only for those provinces.

The main Glossary of Tribes and Castes occupies Vols. II, III, and IV of the work, and there is also an additional Glossary of minor titles (with references to the main articles) at the end of Vol. I. It will be seen, therefore, that the whole subject is dealt with comprehensively and systematically.

Perhaps the most important part of Mr. Russell's work relates to the most primitive races still found in India. The Central Provinces offer peculiar advantages for the study of such races, for here is found the principal collection of the least contaminated tribes of the Munda or Kolarian family, including the Kols themselves, the Santāls, and many others, and also the principal Dravidian tribes, the Gonds, Khonds, and Orāons. The Bhils may also perhaps be classed with the Kolarian tribes, although they have lost their original language. The bulk of this tribe is found outside the limits of the Central Provinces, but those of the Nimār District are sufficiently numerous to be described in a very full article. Totemism is still prevalent among them, even among those professing Islām.

The Gonds are more representative of the Central Provinces, and their influence was so widespread that this region was formerly known as Gondwāna. They are described here in a very full article of over a hundred pages in Vol. III, which practically sums up all that is known on the subject. Under the article "Kol" the whole origin of the Kolarian race is discussed. The articles on Khonds and Orāons, among others on primitive tribes, may also be mentioned as important. The portion of Vol. I devoted to articles on religion and sects has already been alluded to. In this will be found full details on Hinduism and its principal Śaiva and Vaiṣṇava sects, and the sects and religions founded by reformers from the earliest to the latest times, from Jainism to the Ārya Samāj. The Satnāmī sect is confined to the Central Provinces and is practically found only among the Chamārs of Chhattisgarh, and is in essence, according to Mr. Russell, a social revolt against the degradation imposed on the Chamārs or leather-dressers by orthodox Hinduism. The whole of this section deserves careful study.

Anthropologists must lament the loss in Mr. Russell of an Indian civilian who was carrying on with great success the line of investigation with which the names of Mr. Nesfield, Sir Denzil Ibbetson, and Sir Herbert Risley have been worthily associated. India is fortunately not without other enquirers who are able to carry on anthropological, linguistic, archæological, and historical studies without prejudicing their efficiency as Government officers. Such officers are generally those who have been most intimately in contact with the people, and their value in a sympathetic administration of India needs no comment.

These volumes have been brought out in excellent style by Messrs. Macmillan for the Government of the Central Provinces, which has set an excellent example to other administrations in India. It is perhaps permissible to suggest to the Governments of Bengal and the United Provinces that the glossaries of Sir H. Risley and Mr. Crooke should be re-issued in some such form as this, and at the same time revised and illustrated. The anthropometrical figures might be reserved for a separate volume dealing with the whole of India, which would not require such an expensive method of production.

M. LONGWORTH DAMES.

Turkey: Islam.

Sykes.

The Caliph's Last Heritage: A Short History of the Turkish Empire. 14
By Lieut.-Col. Sir Mark Sykes, Bart., M.P. London: Macmillan & Co. 1915.

This is a very timely and valuable book. It falls into two parts. First, a graphic history of the rise and progress of Islam and of the Turkish Empire;

secondly, diaries of exploration in that part of Asia Minor which is now the scene of war. The first part contains little that is novel, but the account of the local geographical features as influencing history is of much interest, and this section provides one of the best available summaries of Turkish history. The second supplies a remarkable description of the races and physical features of a land on which our attention is now fixed. From Mosul as centre he made a series of journeys, including places like Erzerum, Bitlis, Mush, Lake Van, and through Bagdad along the Persian frontier. The account of the Kurds, to whose tribal organisation a valuable appendix is devoted, contains much useful information based on personal experience. "The Kurdish woman," he tells us, "has emancipated herself, and although " she lives apart from the men, is as free to ride abroad, take her leisure, or bully " her husband as any Englishwoman. And with this emancipation comes a far " stricter and higher moral code than elsewhere." In Diarbekir the Kurds "appear " to be idle, thievish, and cowardly; indeed, I imagine that the ill name assigned " to the whole Kurdish race comes from the fact that these particularly unpleasant " people are the only Kurds whom the majority of travellers meet." "I always " understood that the Yezidis were a much maligned people, groaning under a cruel " oppression, and so on; brave, courteous, industrious, with an ingrained love of " freedom, and possessed of all the rest of the Balkan-mongers' stock-in-trade virtues. " My experience, however, does not encourage me to put much faith in the theory." "The Armenian national revival was a calamity which has not yet reached its " catastrophe. Mollahs and missionaries should be put under lock and key before " any serious business is undertaken. . . . Never was a people so fully prepared " for the hand of a tyrant; never was a people so easy to be preyed upon by " revolutionary societies; never was a people so difficult to lead or to reform." It remains to see how they will bear the yoke of Russia. The picture he draws of Turkish mal-administration fully accounts for the present situation. Enough has been said to show that this work will correct many current misapprehensions, and the facts which he has collected will be of the highest value when the settlement of this phase of the Eastern question comes to be undertaken. W. CROOKE.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL
INSTITUTE.

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(Donor indicated in parentheses.)

The Development of British Building Construction. By C. F. Innocent. 9 $\frac{3}{4}$ × 6 $\frac{1}{2}$. 284 pp. Many Illustrations. Cambridge University Press, 1916. 10s. 6d. net. (Publishers.)

An Elementary Grammar of the Ibo Language. By The Reverend J. Spencer. 3rd Edition, revised by T. J. Dennis, M.A. 7 $\frac{1}{2}$ × 5. 116 pp. Society for Promoting Christian Knowledge. 1916. 10d. (Publishers.)

A History of Sumer and Akkad. By L. W. King, Litt.D.F.S.A. 363 pp. With Map, Plans, and Illustrations. Chatto and Windus. 18s. net. (Publishers.)

In Far North-East Siberia. By I. W. Shklovsky ("Dioneo"). Translated by L. Edwards and Z. Shklovsky. 9 × 6. 250 pp. Map and Illustrations. Macmillan & Co., Ltd. 8s. 6d. net. (Publishers.)

The Drama of Savage Peoples. By Loomis Havemeyer, Ph.D. 8 $\frac{1}{4}$ × 5 $\frac{1}{4}$. 261 pp. Humphrey Milford. 7s. 6d. (Publisher.)

Myths and Legends of Babylonia and Assyria. By Lewis Spence. 8 $\frac{3}{4}$ × 6. 380 pp. 8 Plates in Colour by Evelyn Paul and 32 other Illustrations. Geo. Harrap & Co. 8s. 6d. (Publishers.)



EDWARD BURNETT TYLOR.

ORIGINAL ARTICLES.

Obituary.

With Plate B.

Read.

Sir Edward Burnett Tylor, D.C.L., LL.D., F.R.S. Born October 2nd, 1832, died January 2nd, 1917. *By Sir C. Hercules Read, F.B.A.* **16**

The death of Sir Edward Burnett Tylor has deprived the scientific world of a distinguished and rare personality, and the inspiration of his presence will long be missed in the special field that he had made his own. The loss is the more serious inasmuch as new blood is by no means too plentiful in the ranks of the younger men of science, an unfortunate condition at the very moment when the state of the British people, due to the war, will speedily demand just the qualities and experience to be found in the well-equipped anthropologist. In many ways Tylor's career was characteristic of English methods, if one can so call the chain of accidents that finally culminated in providing Oxford, somewhat to her surprise, with a Chair and a Professor of Anthropology. He began life as an apprentice in the family firm concerned with a branch of engineering, but while still a boy his health showed signs of delicacy, and travel became a necessity. He thus found himself in the year 1856 in Cuba, having spent a year in the southern States. In Havana he met with "Mr. Christy," and they arranged to travel together in Mexico. From this trip resulted the very entertaining volume, entitled *Anahuac*, published in 1861.

Modern readers would hardly know that this Mr. Christy was Henry Christy, the famous explorer, with Edouard Lartet, of the caverns of Dordogne, and the person who brought together the immense ethnographical collections now forming the greater part of those in the British Museum. Two men of such similar tastes could scarcely fail to be in sympathy, and on their journey Tylor gathered facts and laid the foundations for his future books, while Christy collected antiquities and the productions of the modern Mexicans to enrich his growing collections. *Anahuac* was followed in 1865 by *Researches into the Early History of Mankind and the Development of Civilization*. Here began the true anthropologist, and until one comes to deal with its successor, *Primitive Culture*, published in 1871, the reader would be surprised at the amount of keen observation and intelligent criticism of ethnological facts to be found in it.

When this last-named book is studied the reader quickly sees to what astonishing lengths Tylor's insight had carried him, during these years, towards the understanding and clear co-ordination of the beliefs and practices of primitive man. Though not the first man in Europe to deal with these problems, he certainly was the first to set them out in an intelligible and businesslike way. Anyone who has studied the writings of Professor Bastian, of Berlin, and will compare them with those of Tylor, will readily agree in this. The width of his reading, observation, and knowledge joined to this agreeable clearness in his written exposition made him easily the first of European anthropologists, apart from the physical aspect of mankind.

As a lecturer he was by no means so successful, it may be from the very richness of knowledge; the retirement of his study was the best incitement to precise expression. But his masterpiece of terse statement was undoubtedly the little manual on anthropology, first printed in 1881, but re-issued to meet the public demand at intervals in the following decade. It is a monument of the compression of a gigantic subject into the smallest conceivable compass, and in this sense is the result of all his previous more expansive writings. Without the concentrated thought and lengthened experience obtained in much more voluminous productions, it may fairly be said that the smaller volume would have been an impossible achievement.

It is here, too, that he puts forward a justification for the study of anthropology that deserves to be borne in mind by all of us who have become involved

in its mazes. The very word is notoriously repellent to the lay mind, and I well remember Sir Michael Foster saying to me when I was President of Section H., at Dover, "The worst of you is that you include nearly everything." It is true enough in a sense, but Tylor's claim is that it simplifies the acquisition and understanding of knowledge, by showing the student the simple fundamentals of all human practices, and thus enabling him to disentangle the mystifying growths that subsequent ages have encouraged, and to see the primitive germ clearly before his eyes. A science (and anthropology has at last painfully become a science) that can do this deserves the gratitude of every student of human activities.

During practically all the period of its growth from a derided byway to truth, when men were groping somewhat blindly without knowing where they were being led, up to the present time, when its help and its decisions are invited by Governments, Tylor was in the forefront and kept a high standard before him and his contemporaries and his grateful disciples.

My first acquaintance with him was about the year 1874, when my duties and responsibilities were limited to the Christy Collection, then in Victoria Street, Westminster, and here Tylor was not only a frequent visitor, but was also the means of adding to the collections. From that time to the end of his life our relations have been uniformly friendly and punctuated by the services, small or greater, that our respective positions enabled us to render each other.

The learned world was fully alive to Tylor's merit, and Oxford bestowed upon him the honorary degree of D.C.L., and he was made an honorary Fellow of Balliol, while Cambridge conferred her D.Sc. at a later date. In my opinion, the event that gave him the greatest pleasure was his Oxford appointments, first Keeper of the University Museum, then Reader in Anthropology, and, finally, its first professor. It is to be hoped that Oxford will not allow him to be also the last. As Gifford lecturer he had a subject very much to his taste in the delivery of two series of lectures on natural religion. As President of the Institute he brought to bear upon our proceedings the accumulated experience and knowledge of an active life devoted to studies such as ours, while his distinguished presence and gentle manner made our meetings under his auspices both dignified and agreeable. It was a pleasant duty to his friends and fellow workers to band together to produce the volume of essays dedicated to him on his seventy-fifth birthday; these will remain as a monument of the affection that bound them to him when other schools of anthropologists will have arisen and will build on the foundations he has laid.

C. H. READ.

Japan: Folklore.

Hildburgh.

Some Japanese Charms connected with the Making of Clothing. By W. L. Hildburgh.

17

"Some ladies never cut out material for a costume without uttering a set formula of invocation, or placing three pinches of rice on the shoulder gusset, and nearly all eschew the 'monkey' days of the calendar and choose the 'bird' days for such operations, the belief being that burns and rents will result if the former precaution be neglected, and that in the latter case the garment will be as durable as the plumage of a bird."* After the pieces of a garment have been cut out, they are laid together so as to form a small pile, the measuring-stick which has been employed is placed upon the top of them, and a little dried bonito is placed beside the pile as an offering to, I have been told, the measuring-stick, as embodying a divinity who is a patron of tailoring [Chikuzen province†].

* F. Brinkley, *Japan and China*, Vol. V, p. 236.

† Place-names given thus identify the localities in which I recorded the respective beliefs or practices cited, or those where they had been observed by my Japanese informants.

The measuring-stick, which is regarded by women as having something of a sacred character, must be treated with respect, lest it cause trouble to the person who acts in a disrespectful manner towards it. Thus, for example, it must not be stepped over, because stepping over a thing is considered to be insulting to that thing (as it would be to a person), and sometimes to have very injurious effects upon it; and it may not be placed on any person's head without danger to him—it is thought that if it be placed upon a child's head the child's growth may be interfered with, perhaps, my informant suggested, due to a belief that the spirit of the measuring-stick may become angry, perhaps, I think, because of a belief connected with the idea of the injury (also cited by various informants in each case as the stoppage of growth) which may be caused by the placing upon the *head* of various objects having intrinsic psychical powers or by the stepping over of a child [Chikuzen]. On one day of the year the measuring-stick and the needles are allowed to rest, and offerings of food are made to them [Chikuzen].

"Industrious women still make offerings of broken needles at the temple of Awashima on the 8th of the [12th] month, and still abstain from all sewing on "that day."* "The superstitious Japanese housewife still, on the 12th day of the "2nd month, gives her needles a holiday, laying them down on their side and "making them little offerings of cakes, &c."† If a woman, while sewing, puts her needle into her hair and then goes out, forgetting to remove it, some piece of ill-luck will befall her‡—a belief which may be related to one of those noted above with respect to the placing of the measuring-stick on a person's head, for needles are employed (often specifically, and not merely because they are one kind of pointed objects) in various curative or injurious *majinai*, seemingly as objects productive of an irritant action by which supernatural beings may be coerced. If a needle sticks in the flesh one should, to avoid poisoning thereby, strike the wound several times with the handle of one's scissors, saying "*Togameru na*" (*togameru* = to censure, to blame), a formula explained to me as being the equivalent of "Do not become irritated" [Yokohama]. (The striking with the scissors, a weapon-like article of which spiritual beings would be afraid, suggests that the formula is really addressed to some supernatural being, or possibly to the needle; thus, the intention of the formula would seem to be the expression of "Don't cause irritation; I'm not blaming you.") It is believed that a needle which has penetrated the foot will move upward through the body until it reaches the head.§ If one thread a needle by the light of the moon, the eyes are thereby strengthened.||

In order to find a needle which has fallen, one should recite first one half of a certain verse and then should stroke the kimono three times, beginning at the crotch and stroking upward over the stomach; after the needle has been discovered, the remaining half of the verse should be recited [Yokohama].

If, when one is sewing, one's thread becomes entangled, one should recite three times in succession a certain verse (of the nature of one of our "tongue-twisters") which is spoken correctly only with difficulty; if this recitation be performed properly, the threads may be disentangled with ease [Yokohama]. I think that, behind its very obvious symbolic conception, this *majinai* has a sound basis; the fixation of the attention required in order that the verse may be spoken properly is

* Brinkley, *Japan and China*, Vol. VI, p. 123.

† W. G. Aston, *Shinto*, p. 73.

‡ H. ten Kate, "Aus dem japanischen Volksglauben," in *Globus*, Vol. XC, p. 114.

§ P. Ehman, "Volksthümliche Vorstellungen in Japan," in the *Mittheilungen der deutschen Gesellschaft für Natur- und Völkerkunde Ostasiens*, Vol. VI, p. 337.

|| *Ibid.*, p. 334. Ehman, who gives rationalistic explanations of a number of the Japanese beliefs and customs recorded by him, says that this belief is based on the idea that when there is moonlight one should use it to work by, and thus be sparing of artificial light.

likely to cause the attempt at the disentangling to be made carefully and without haste.

If an insect crawls through the leather ring used by the Japanese for the purposes of a thimble, a swelling will occur on the finger upon which the ring is worn.*

The following beliefs about clothing are worth noting here: "After 5 p.m. " many people will not put on new clothes or sandals."† A plentiful supply of clothing and the securing of good-fortune in general is thought to be assured by the placing of a cowry-shell (*koyasugai*) with the laid-away clothing, because, according to my informant, of the *koyasugai*'s well-known significance as a symbol of good-fortune, or by the placing of obscene pictures with the clothing‡ [Yokohama]. A similar plentiful supply of clothing is thought also to be assured by the placing and leaving permanently of a certain shining green beetle, called the *tama-mushi* (jewel-insect), often whilst still alive, among the clothes which have been laid away§ [Yokohama]. White spots coming upon the finger nails, or a mole upon the neck, are indications of new garments for the persons on whom they have appeared.||

W. L. HILDBURGH.

Archæology.

Seton-Karr.

Flint Implements in the Desert East of the Suez Canal. By **18**
Captain H. W. Seton-Karr.

I have recently received some information from Mr. Hugh Calverley, of the Egyptian Expeditionary Force, of some flint workings to the east of the Canal. It has been known for a long time that in the neighbourhood of El Arish flint sickle-saws and knives, with a scraper indentation (sometimes mistaken for a handle), and other implements very similar to those I found in the Fayum desert, and on the dry bed of the ancient Fayum Lake, have been collected by Arabs. Mr. Calverley writes to me as follows:—

"I saw your flint implements from the Desert in the Cairo Geological Museum, and thought you might like to hear of some finds I made. The flints were lying on the surface of the gravel or limestone east of the Canal, in not less than twenty distinct groups, separated by sand or bare patches of limestone. Each group varied much in type of instruments, one group being worked to one rough point; another black-coloured scrapers and knives; another blue-white patinated small flaked imple-

* *Ibid.*, p. 320.

† W. E. Griffis, *The Mikado's Empire*, 1896, p. 472.

‡ These two beliefs have the appearance, to me, of outgrowths from a belief that the protective or luck-bringing virtues of the objects cited would be communicated to the clothing and thence to its wearers. While I have no record of a belief having exactly this conjectural form, I could cite various Japanese examples of effects which are thought to be produced upon a person by actions carried out upon his clothing. I have been told by an informant from another part of Japan that people wishing to be lucky in lotteries sometimes carry (secretly, if the charm is to be successful) pictures of the vulva (of which the cowry-shell noted above is a well-recognised image) or pornographic pictures in which the vulva forms a prominent feature. There is a tradition, of which I have heard from the two independent informants cited, that in the olden days soldiers carried pictures of these kinds into battle, "to keep up their courage," or kept them with their armour.

§ Compare with this: "From time immemorial it has been, and still is, the invariable custom on the occasion of a wedding in the higher classes of society that the bride is provided with a lacquered box, about the size of a small lucifer box, in which are placed two dried beetles, of a golden colour, known as *Tama-mushi* (jewel insect), which, if swallowed, are supposed to cause speedy death. This is in case something should happen to make her wish to put an end to her existence . . . the real poisonous insect is, it may be credited, rarely placed in the box" (C. Pfoundes in *Fu-so Mimi Bukuro*, p. 154); and "Formerly *Junshi* was practised by the upper classes. When the master died his wife . . . committed suicide. Later on . . . although the rite was prohibited, it was still at times practised in defiance of the law" (*ibid.*, p. 96).

|| Ehman, *op. cit.*, pp. 329, 330.

ments ; another, large in number, many unfinished, and in thick concentrated patches ; another white-patinated knives well worked ; another with several rounded scrapers in it. All these groups about 1 to 3 kilometers apart, ranging in a triangle to Hill 176, none below Contour 50, and mostly between Contours 80 to 100. There are no polished tools. There are block-planes and borers, saws and long scrapers rounded at both ends, and a peculiar big scraper, perfectly symmetrical, flat on the back, and unground. . . . I only had ten days to work in before they moved us."

From rough drawings Mr. Calverley has sent me I imagine that they are of the same age as the El Arish and Fayum types, and that the reason why they occur here is that tabular flint and small pieces of very hard flint, suitable for the making of these particular types, occur here. This spot must have been far from fresh water unless the climate was different in the epoch when they were made. There is a fine collection of stone implements from various parts of Egypt in the Prehistoric Room in the Cairo Museum, but for want of space the late Sir Gaston Maspero used it as a store room, and it was closed to the public, and I assume that, as Mr. Calverley does not mention it, it still is so, unless the present director has re-opened it, which I trust is the case ; if not I hope Mr. Quibell will do so. Mr. Calverley and myself would be glad of any remarks or suggestions by anyone with reference to these desert implements.

H. W. SETON-KARR.

America.

Hrdlička.

Transpacific Migrations. By Alec Hrdlička, U.S. National Museum.

19

The phases of transpacific *migrations*, or, perhaps, more properly *spread* of man, which most interest the Americans, are naturally those which have to do with the peopling of the American continent.

It is quite evident that man did not originate in the New World, for there were no higher primates from which he could have evolved. He must have come from some part of the Old World, and more especially the Asiatic continent, which affords the only practicable routes by which a primitive man could reach the new land. With the bulk of the Pacific migration, or spread of mankind, or that which relates to the peopling of the Pacific islands, we have but little to do, for the easternmost of these movements were relatively recent and could have had no rôle in the peopling of America. It seems safe to conclude that, by the time the Polynesians reached Hawaii and the Easter Island, America was already well peopled from north to south.

The migrations, therefore, that most concern us are those of the Northern Pacific, and more particularly, if not exclusively, those of the northernmost part of the ocean and Bering Strait, where, by means of a great chain of islands, and further north the mainland, the two continents come closest together. The more we know about the American aborigines, their culture, and antiquity, and about ethnographic conditions in prehistoric times in general, the more we are led to the conclusion that the north-western route, just outlined, was the only possible route by which the ancestors of the Indian some thousands of years ago could have come. They had no knowledge of sailing vessels unless it were simple rafts with primitive sail contrivances ; and in ordinary native boats or kayaks they could not have negotiated any large stretches of the ocean, but they could have reached with such craft the Commander and Aleutian Islands from the Asiatic coast, and could, of course, have readily at any time crossed Bering Strait, or even Bering Sea further southward.

To that extent our conclusions are fairly crystallised ; but the great problems that confront us are the when and where and why of the spread of the people from Asia to America. These are large and important questions which will require yet

much future thought and investigation; but there are certain logical inductions applying to these points which can be formulated and stated quite briefly.

As to the *time* of the migration, it seems plain that in the absence of all knowledge of the New World on the part of Asiatic natives, their coming over was accidental and could not have taken place until after extensive peopling of the most of Asia, peopling which obliged some of the tribes to extend search for food, and perhaps safety, into the northern and easternmost regions of the territory; and such a degree of peopling of Asia could not possibly have been effected in very remote time. It would be difficult, if not impossible, for any of us upon reflection to assign this time any further back than the European neolithic period. Otherwise we should have to account for a separate and anterior peopling of Asia, for which we have no ground whatever.

The first coming of people to the American shores must have been, as already mentioned, quite accidental, and represented merely another step or period in the gradual extension of some Asiatic tribe or tribes northward and eastward. It was no migration in the strict sense of the word; it was merely the following of game, of food. No masses of humanity could have crossed by any of the north-western routes at any one time, for no such masses of population could have ever existed on the Asiatic part of the Bering Sea. The coming over must have been in the nature of small and repeated dribblings or overflows. At the utmost a party who found the new and richer land would return and bring over a part of a tribe or even a whole tribe, of limited numbers. In the course of time the process would be repeated with other tribe or tribes working their way north-eastwards along the Asiatic shore; and thus there were doubtless repeated discoveries and small invasions of Alaska, from which the spread over the rest of the continent was mostly in the direction of least resistance and better prospects, and hence quite easy and natural.

The separate tribes or parts of tribes reaching America, though all belonged to one main physical strain or race of humanity, brought with them, there is much reason to believe, differences of language as well as some differentiations of culture, both of which became in America, in the course of time, subject to further changes and developments.

These are, very briefly, the essential inductions concerning the north Pacific migrations between Asia and America. There is no reason to believe that, with the exception of small visiting Eskimo parties in relatively recent times, any migration has developed in the opposite direction, that is, from America to Asia. This would have been a movement against greater resistance and in the direction of lesser advantages, two natural laws which primitive people without some all-impelling motive would scarcely face and try to overcome; and it is difficult to conceive of such motive on the part of any of the prehistoric Americans.

Looking over the rest of the Pacific, and coming to more recent times, within the last fifteen or twenty centuries, we admit the possibility of small parties of men reaching America from Asia south of Kamchatka, or from the Polynesian Islands. But if such parties came, they found America already peopled, and could have had but little influence on the blood of the Americans; though they could have readily introduced a few cultural specialties or modifications. The latter fact may account for some of the ethnological similarities that are common to the two great regions.*

ALEC HRDLÍČKA.

* For a more detailed exposition of the subject see author's "Genesis of the American Aborigines," *Trans. XIX Internat. Congr. Americanists*, Washington, 1916.

Ireland: Folklore.

Long.

The "Wildfire" and Marriages between Persons of same Name.**20***By Richard C. E. Long.*

The following information relates to districts in the Barony of Upper Philips-town, King's County, and the adjoining Barony of Tinnahinch, Queen's County, and has been learned by me from only one informant. I first heard of it by a chance remark and have had it confirmed by informant at intervals of a year or so, without any leading questions.

The wildfire is a skin disease, of which I do not know the medical name, affecting the neck. Informant had it when a child and was cured of it by her father, who procured the blood of a black cat and rubbed it on the part affected. No charm or anything else is required except the blood, and any one could cure with it. The blood was got by putting the cat in a bag and nipping its tail with a pair of scissors.

Independent of the black cat treatment, my informant heard a woman (whom I know) speaking of people lately who cured either ringworm or wildfire in their children by asking for bread from a house where the husband and wife were of the same surname, that is where the wife's surname before marriage had been the same as that of her husband. It is not necessary to send the affected child for the bread. Any other messenger would do. Informant had heard of the cure before but could not remember what was done with the bread or whether the sick child ate it.

There is a saying when two people of the same surname marry, "That would cure the wildfire," but this is a mere joke. There is no belief in its being unlucky for persons of the same surname to marry each other nor any other objection to their doing so of any kind whatever.

So far my informant, whom I consider quite reliable. To this I may add from my own knowledge of this district, in which I have been long living, that there is no objection whatever to such marriages, and that they seem as common as one might expect mathematically from the numbers of people of each surname. The only restrictions on marriage among the peasantry are the prohibited degrees of the Roman Catholic Church.

I wish to make it as clear as possible, even at the risk of repetition, that there is no restriction on or objection to such marriages, because, from other instances in anthropology, I feel sure that if this article is ever noticed by any anthropologist it will be quoted as an instance of exogamy in Ireland, which it is not. When once such a statement is made it is repeated by one "authority" after another, gaining weight from each, till it becomes an article of anthropological faith. As Professor Elliot Smith says in another connection, this question is all one of authority. I trust, therefore, that I may not become the innocent cause of a new anthropological myth, but it seems well to put the above facts on record, as they may lead to further information, and may perhaps be taken as an echo in folklore of some ancient rule of exogamy. If so it must be a distant echo indeed, for as far as I know there is no evidence of exogamy among the ancient Irish.

RICHARD C. E. LONG.

REVIEWS.

India: Archæology.

Archæological Survey of India. Annual Report, 1911-12.

The Report of the Archæological Survey of India for 1911-12 has followed those for the preceding years in rapid succession, and the publication of the results of excavations is now being kept well abreast of the work by the Director, Sir John

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Marshall. From a strictly archæological point of view the most interesting articles are the following :—

“Excavations at Bhītā” (near Allahabad). Plates XII to XXXII. By the Director.

“Excavations at Sahr-i-Bahlōl” (continuing the work described by Dr. Spooner in the volume for 1909–10), with Plates XXXIII to L. By Sir Aurel Stein.

“Explorations at Mathurā,” with Plates LI to LVII. By Dr. Vogel.

“The Vishnu Images from Rangpur.” Plates LXX and LXXI. By Dr. Spooner.

Mr. Gordon Sanderson’s account of Shāh Jahān’s fort at Delhi (Plates I to XI) is also of great interest historically, and the progress of the work of restoration is described in detail from its inception. It is now possible to form a connected idea of this important work. The bird’s-eye plan in Part I of the Report for 1912–13 should be consulted in connection with these papers. It is impossible to allude in detail to the numerous important discoveries announced. That which will attract most notice is the inscribed statue of King Kanishka found at Māt, near Mathura (Plate LIII). Dr. Vogel draws from the style of this statue and that of some others of the Mathura school the inference, “that the great flourishing period of the Gandhāra school must “have preceded the reign of the great Kushāna rulers Kanishka and his successors.” This is a heavy load to rest on such a slight foundation. Dr. Vogel here ignores the fact that figures in Kushān costume are not uncommon in Gandhāra sculpture of a good period, and also the probability or certainty that Gandhāra canons of art did not obtain in Mathura, for the very sufficient reason that craftsmen trained in the traditions of Greek art were not to be found outside the limits of the recently occupied Greek states of the extreme north-west of India.

Dr. Vogel founds another argument on the statues of the Kushān kings, who are always represented as wearing high boots in the Central Asian fashion. He thinks it possible that the statues of the god Sūrya (the sun-god), standing in his chariot (which always represent him as wearing high boots or buskins), have their origin in Kushān statues, and that they should be traced to the introduction of Mithra-worship by these kings. Dr. Vogel does not allude to the fact that this argument, or one very like it, was used by General F. C. Maisey in his *Sānchi and its Remains*, published in 1892. General Maisey thought that the high boots of Sūrya were signs of Mithraic origin, which he traced to the influence of the Achæmenian kings of Persia rather than to later immigrants (see his p. 128 and Plate XL). Boots of this kind were worn throughout Central Asia and in many parts of the Persian Empire, and although there is much to be said in favour of the connection with Mithras, the derivation from the boots shown in the statues of the Kushān kings seems hardly tenable.

Dr. Spooner’s account of the bronze images of Vishnu found at Rangpur, in Eastern Bengal, relates to the discovery of metal figures of unusual size and good execution belonging to a period not far removed from the 10th century. There is a great resemblance between these figures (especially Plate LXX (1) and Plate LXXI (3)) and the stone reliefs found in Bahar belonging to the 10th or 11th centuries, and this extends not only to the general treatment, but to the actual features of Vishnu. In Plate LXX (2), the figure on Vishnu’s left is probably, as Dr. Spooner thinks, Prīthivī, the earth-goddess; the lotus she carries cannot possibly be a twisted form of Sarasvatī’s vinā, as Mr. Mukherji thinks. In Southern India at the present day, the figure which counterbalances Lakshmī is known as Bhū-devī, or Bhūmi-dēvī, another name for the earth-goddess.

Sir J. Marshall’s Bhitā excavations have brought to light a great number of small terra-cotta, objects of which several are specimens of primitive art, going

back, perhaps, to the 8th century B.C. Other groups belong to the Maurya, Sunga and Andhra, Kushān, Gupta, and later periods. The plaque shown in Plate XXIV is of great value as a specimen of Indian art of about the 1st century B.C. The figurines of the Gupta period are also of great variety and artistic value. It is impossible to do more than allude to the numerous objects of terra-cotta, stone, copper, and iron which are described and figured.

Sir Aurel Stein's account of the excavations at Sahr-i-Bahlōl is full of interest, and in his identifications of the numerous pieces of Gandāhra sculpture which have been brought to light he has had the invaluable co-operation of M. Foucher. The most important discovery from the iconographic point of view is Plate XLI, Fig. 16, a four-armed female deity holding the figure of a child, and with small tusks projecting from the mouth. Sir A. Stein agrees with M. Foucher in considering this to represent Hārītī in her original form as a Yakshinī. Although late, it is, he considers, undoubtedly Gandhāra work, and is a very early example of the "many-armed monstrosities" of later Buddhism.

The Peshāwar Museum will be greatly enriched by the numerous finds at Sahr-i-Bahlōl and other sites in recent years, and it cannot but be regretted that under the rules now enforced by the Indian Government the British Museum cannot obtain some representative pieces illustrating the latest discoveries. The local museum has undoubtedly the first claim, but the central museum of the whole British Empire certainly deserves more consideration than it receives at present.

Other articles are "Four Sculptures from Chindimau" (describing some good mediæval Buddhist sculpture of the 10th or 11th century, and some reliefs of the Gupta period), "Two New Kings of Bengal," and "The Third Vijayanagara Dynasty," all of which contain valuable material. M. LONGWORTH DAMES.

Sierra Leone.

Beattie: Griffith.

Human Leopards: An Account of the Trial of Human Leopards before the Special Commission Court (of Sierra Leone). By K. J. Beattie, Barrister-at-Law. With a Preface by Sir W. B. Griffith. London: Hugh Rees, Ltd. 1915. 22

About twenty-five years ago it became obvious to the colonial authorities of Sierra Leone that in the densely forested and somewhat marshy south-east region of that colony and protectorate secret societies of an evil nature existed, and that amongst their practices was a form of cannibalism carried on under the cover of simulated attacks by wild beasts. In almost all Negro Africa there has existed down to quite recent times (as in the less civilised portions of Europe and Asia) a belief in the wer-beast, the human soul entering into the body of some predatory mammal or reptile, or some transmutation of human and non-human outward semblance, under cover of which the devouring of human flesh or the sucking of human blood might take place. The writer of this review has himself sat in judgment on "wer-lions" in Nyasaland, elderly negro men generally, who obviously believed that they had power to transform themselves into lions, and in this disguise to attack and kill unsuspecting men, women, or children. In these East African instances there was seldom any indication that actual cannibalism followed the exploit, though there may have been some sucking of blood from the victims' veins, or the blood lust was satisfied with the death of the victim. But in forested Africa, more especially the seaboard forests of the west coast (notably those of the Cameroons-Niger Delta region and the dense forests of Sierra Leone and Liberia), the eating of human flesh was an incentive to the adoption either of these delusions or of these pretences fomented by secret societies.

The human leopards of Sierra Leone had from twenty-five years ago down to 1912 attained an evil notoriety. The reviewer of this book himself visited a portion

of the country supposed to be infected by these secret societies in 1907, accompanying thither the Acting-Governor of Sierra Leone on a tour of inspection. The grotesque and jarring contrast which presented itself was a veneer of Christianity or Muhammadanism, great outward respectability on the part of those chiefs who were already under suspicion, and yet an unexplained certainty that the whole region was seething with the most ghastly savagery. One felt instinctively that some of the men with clean, well-kept hands and beautifully-trimmed nails, flashing teeth, and oily airs of welcome, appraised one with their carnivorous eyes as a possible victim. Rumours and surmises became actual facts, dragged into the light of day when a series of trials took place in the year 1912. It is this series, and all that led up to it, which has been described in a businesslike and authentic fashion by Mr. Beattie in the book under review.

But there is much that we have yet to learn on the subject of these secret societies in the recesses of Sierra Leone and Liberia, and it is a pity that so far—no doubt for good official reasons—Mr. Northcote Thomas, the Government Anthropologist of the Sierra Leone Protectorate, has not been enabled to institute his researches in that region, though he has already accumulated information concerning Sierra Leone likely to be, if anything, more interesting and eye-opening than his previous work on Southern Nigeria.

Sierra Leone, both coast colony and hinterland protectorate, is an area of only 30,000 square miles in Western Equatorial Africa, but, like Portuguese Guinea, not far away, and Liberia alongside, it has more interest to the square mile for anthropologists and ethnologists than many other sections of the continent which might run to 100,000 or 200,000 square miles in extent. And strange to say, though it has been an appanage of the British Crown for something like 130 years, it is still one of the least known parts of Tropical Africa, though it is possessed of exceedingly beautiful scenery and—away from the coast and the human leopard region—a not very unhealthy climate. Although it has had a number of lurid and nasty episodes in its history, such as those related in this volume, it happens to be at the same time one of the most successful instances of wise colonial government which we can show in Africa, and is an exceedingly prosperous dependency.

H. H. JOHNSTON.

Africa, West.

Cureau.

Savage Man in Central Africa. By Adolphe Louis Cureau. Translated by E. Andrews. Pp. 351. London: T. Fisher Unwin. 12s. 6d. net. **23**

The title of this work is misleading; its scope is better defined by the sub-title "a study of primitive races in the French Congo." The late author has been for over twenty years an official in the French Congo, and the book gives an account of his impressions of this country. These are essentially and typically those of a *fonctionnaire*, whose daily duties bring him into constant antagonism with the natives, and who, consequently, is entirely debarred from any real intimacy with them. Thus the author's claim to have penetrated the black man's mind is not substantiated by his book. It is to be hoped that the sample of his linguistic knowledge given on page 29 has suffered cruel handling by the translator, as—

	<i>o mamagne</i>	<i>mapembe</i>	<i>mobote</i>
does not mean	white	stones (are)	beautiful,
but	stones	white (are)	good.

The work is divided into three books, the first of which deals with the influence of environment. The second is supposed to give an account of the psychology of the Negro; it is a severe, and I believe, unfair indictment of the whole race. According to Monsieur Cureau, the Negro is rather inferior to the European in the

acuteness of all his senses ; he eats by preference carrion ; he lacks either in stability or intellectual and moral memory ; his feelings of affection are superficial and so are his feelings of hatred ; he has no innate sense of kindness ; and vanity, pretentiousness, stupidity, and tyranny grow out of his egoism. Integrity is unknown to him unless enforced by threats or fear ; he is neither merry nor sprightly, nor yet humorous ; his inferior intellect "is one and the same for the entire race. One Negro differs " very little, psychologically speaking, from another Negro."

The tendency of generalising results in statements like "the Negroes are entirely " ignorant of kissing," "wind instruments are unknown in the Congo Basin," and "the Fans are the only tribe of my acquaintance who possess a spoken literature." It may be safely assumed that the last statement is equally incorrect for all tribes in the Congo Basin, and this assertion alone ought to put the reader on his guard against the views of the author.

The third book deals with sociology, and is written on the same lines as the others. The photographs reproduced as illustrations are excellent, but have, for the the most part, no connection whatever with the text. E. T.

Siberia: Natives and Colonists.

Czaplička.

My Siberian Year. By M. A. Czaplička. London: Mills and Boon, Ltd. 24 n.d.

Miss Czaplička has written an ideal book of travel, as she gives a great deal of information about North-Central Siberia and its inhabitants, lightly connected with the chronological order of her journeying, and always with a delicate and humorous touch of the personal element, which gives the book a very human atmosphere. How well she was qualified for her task is evident to those who are acquainted with her excellent compilation, *Aboriginal Siberia* (1914), and from the fact that she was trained in the Oxford School of Anthropology.

The book is frankly a popular record of research and personal experiences, and as such it should appeal to a wide circle of readers. Those who read MAN will look forward with impatience to the publication of Miss Czaplička's detailed investigations. In the meantime they will do well to make themselves acquainted with this book, not merely as a whet to the appetite, but because it does serve a definite purpose. The country through which the expedition travelled, the climate, and the biological peculiarities are little known to the general reader, but a knowledge of them is essential if we are to gain an accurate conception of the life of the inhabitants. This Miss Czaplička always keeps in view, and thus the book is of exceptional value as a study in Anthropogeography. We not only obtain a knowledge of the conditions of life of the people, but the author's own experiences, and various anecdotes of certain of her native friends bring out clearly the hard struggle for existence and the efforts made to alleviate it.

Miss Czaplička indicates the various waves of migration among the people she visited. The Palæo-Siberians do not come under consideration. She describes the Neo-Siberians as novices as compared with the older inhabitants, but still their skill in grappling with the problem of the difficult climatic conditions in the Arctic impressed her greatly. In a few words she hits off the salient economic differences between the Samoyed, Tungus, Yakut, Yenisei Ostyak, &c.

The Sibriaks are, to speak broadly, the colonials whose ancestors have been settling in Siberia, voluntarily or involuntarily, since, say, the end of the Middle Ages, and in whose veins may run the blood of the Little Russian, the Great Russian, the Pole, the German, the Jew, and the aborigine. The exiles fall into two groups, political and criminal: "The policy of the home Government in dumping their human rubbish on to Siberian soil is not satisfactory, to put it rather

"mildly, from the Sibiriak point of view. . . . The criminal exile, in many cases physically and mentally degenerate or diseased, is not the type of which a satisfactory settler can be made." The "politicals" are a very different type, "who always form themselves into a society which exercises a moral control over all its members." The official policy of lumping together these two classes of people who have absolutely nothing in common is due to a desire to discredit the *politicheski* in the eyes of the Sibiriaks.

Miss Czaplicka exhibits great restraint and circumspection in dealing with the treatment of the Siberian problem by the Russian Government, and, therefore, her statements carry conviction as being an impartial record of facts. It is to be hoped that a full and accurate Russian translation will be made of this excellent book.

A. C. HADDON.

Sarum Lore.

Stevens.

The Festival Book of Salisbury (Salisbury, South Wilts, and Blackmore Museum, 1864-1914). Edited by Frank Stevens.

25

This interesting volume was prepared in 1914 to commemorate the jubilee of the famous Blackmore Museum, which was founded in 1864. The editor is Mr. Frank Stevens, Resident Curator of the Museum, and he and the Museum Committee must be congratulated on their decision to publish the book, though the proposed festival stands postponed.

To a Wiltshire, and especially to a Salisbury man, the contents of the volume will make special appeal, but they are of interest to all who have an appreciation of antiquities, bygones, and local history. First place must naturally be given to the article on "The Fossils and Prehistoric Remains of Salisbury," by Dr. H. P. Blackmore, the prime mover in the foundation of the museum, and now its honorary director. A full list of the dozen or so articles cannot be given here, but its range may be judged from the following selection: "The Great Bustard," "Old Sarum," "Civic Salisbury," "Old Salisbury Industries and their Remains," "The Giant and "Hob-Nob and their Story." There are many illustrations, including a number of plates of "Salisbury Worthies," and of "Notable Objects" in the museum.

Attention may be called to the genial invitation of the Curator to visit the museum and accept his guidance. The value of such a museum is far more than local, and it is pitiful to have to record that there is a collecting box at the door. This need not alarm the indigent amongst us, however, since by contributing a penny piece the visitor will show more than the recorded average degree of generosity. Some day, perhaps, all reputable museums will be State-aided institutions, with grants depending upon local rate contributions and upon the provision of an adequate scientific staff. This would involve official inspection, but when—or if—science comes into her own, inspectors will perhaps deal with subjects which they have been trained to understand. At present the provincial curator is badly in need of support—financial, scientific, and moral—to help him to overcome the inertia, or even opposition, of those to whom education is merely one of the causes of increased rates and taxes. It does not appear that either the excellence of the collections in the Blackmore Museum, or the influence of those who have made this festival book, has been sufficient to establish the finances of the museum on a firm basis. In view, however, of the Government's decision to close the national museums for the period of the war, surprise can scarcely be felt that local authorities take the narrow view. There are plenty of picture palaces.

H. S. H.

North America : Anthropology.**Rogers.**

Indian Population in the United States and Alaska, 1910. Issued by the Department of Commerce, Bureau of the Census, Sam. L. Rogers, Director. Washington, 1915. **26**

There is no more valuable anthropological document than a census report. A census is the anthropological method of feeling the pulse of a people; a report is the anthropologist's bulletin. In the present case the patient is particularly interesting—namely, the American-Indian population of the United States. The bulletin for 1910 is more detailed and of greater importance to anthropologists than any of its predecessors. In the Census of 1910 special schedules were issued for the Indian population, and special agents were appointed to deal with them. The sections of this Report which deal with the Indian population, the proportion of mixed blood, the sex distribution, the age distribution, stock, tribes and mixtures, fecundity and vitality, were compiled and written by Dr. R. B. Dixon, of Harvard University; while those sections which deal with marital conditions, school attendance, illiteracy, ability to speak English, occupation, and taxation were assigned to Dr. F. A. Mackenzie. Both have done their work well.

In the three centuries which preceded the Census of 1910, that area of the globe—3,000,000 of square miles in extent—which now constitutes the United States of America—has been the scene of the greatest revolution which has ever taken place in the world's population. In the year 1910 there were, broadly speaking, 92,000,000 of people of European parentage, 8,000,000 of African parentage, and only a little over a quarter of a million (265,683) men, women, and children, who could claim a descent from the pre-Columbian possessors of America; scarcely enough of the original inhabitants remain to people one of the suburbs of a modern American city. Even of the 265,683 individuals enumerated in the Indian census, only 150,000 could claim to be of pure blood. It is true that 280 tribes can still be enumerated, but 10 of these had only a single representative—often impure; 42 of them had 10 or less adherents; only 77 of the 280 had more than 500 members.

The 101 tribes found on the Pacific slopes—chiefly in California—could only count amongst them some 16,000 adherents. The remnants of the tribes which occupied the Atlantic States are more European than Indian in blood; in the central States the Indian blood predominates over the European; in the south-west the Indian blood is mostly pure. The Census of 1910 shows that although nominally the Indian population holds its own, in reality it does not; Dr. Dixon shows conclusively that fertility and vitality increases with the infusion of European blood. Nominally the Indian is holding his own, because every individual in whom an appreciable amount of Indian blood can be recognised is counted as an Indian. While the absolute number of nominal Indians remains stationary, the European and African elements in the race increases at a rapid rate. There were over 18,000 scattered Indians enumerated—Indians which had fallen out of a tribal organisation. The tribal recalcitrant must prove an ever-increasing factor. The tiny tribal islands of natives cannot withstand the erosion of the Republican Sea by which the Indian is being overwhelmed. In 1910 about seven Indians out of ten could speak English; in 1900 only six out of ten could answer that test. In 1910 rather a larger proportion (27·8 per cent.) were following a "gainful labour" than in 1900. There can be no doubt that the Indian tribal elements will disappear in the European sea of the States, and not the most skilful anthropologists in the world will be able to detect a trace of the red man's blood in its final waters.

A people under a tribal organisation is one which must always have an interest for the anthropologist. Until these later days—of Neolithic and subsequent cultures—the world's population was organised as tribes. It was undoubtedly under the tribal

system that our present races of mankind were evolved. We therefore turn to the 1910 Census to see how evolution works. We see at once that certain stocks and certain tribes have become overwhelmingly strong compared to others. If we take five tribes—the Cherokee (Iroquoan stock), Navajo (Athabaskan stock), Chippewa (Algonquian stock), Choctau (Muskogean stock), and Teton Sioux (Siouan stock)—we have in these five nearly as many members as in the remaining 275 tribes. They represent dominant conquering types. Under a tribal organisation we can see the workings of evolutionary factors in a population much more diagrammatically than in the nationalities of Europe.

In conclusion, we would offer our congratulations to all who are responsible for the Indian Census of 1910, and assure them that they have produced a work of first-rate importance to all who study the laws which regulate the lives of modern races of mankind.

A. KEITH.

Physiology.

Bainbridge: Menzies.

Essentials of Physiology. By F. A. Bainbridge and J. Acworth Menzies. Longmans, Green and Co. 1914.

27

In this volume, intended for the use of the medical student about to take a pass examination in physiology, the authors have managed to compress an enormous amount of information into the smallest possible space. It has not been possible to give many histological details or those of a number of common chemical or experimental methods, but were the book printed in smaller type on thinner paper it would be perfectly fair to describe it as a remarkably successful pocket dictionary of physiology. Tested from this point of view very few omissions will be found.

C. G. S.

Spain: Archæology.

Breuil: Obermeier: Venner.

La Pileta a Benojan (Malaga), Espagne. Par H. Breuil, H. Obermeier, et W. Venner. Monaco, 1915. Pp. 65. Illust. and XXII Plates.

28

This is another of the finely illustrated monographs on the murally decorated caves of France and Spain published at Monaco. Although from an artistic point of view it cannot vie with the Cantabrian and Aquitanian caves, its decoration shows distinct analogies with them, and it is of great interest on account of its southerly position. It offers another link in the chain of direct evidence of palæolithic migration into the Peninsula from the south.

The cave is situated about 700 metres above sea level in the Cerro de la Pileta, a peak in the north-east of the Sierra Libra, a mountainous district in the Province of Malaga. It is about forty miles, as the crow flies, from Algeciras.

Some years ago the cave was explored by native peasants in search of bat guano. They found many earthen vessels, and were astonished to see some of the walls covered with all sorts of incomprehensible designs, or *Letreros* as they called them. About six years since Colonel Willoughby Venner, when on an ornithological expedition heard of these from his muleteer. Consequently he paid several visits to the cave, and sent an account of his experiences to *The Saturday Review*.

The cave is very extensive and complicated, and its exploration is quite a climbing expedition, ropes being required to get through in some places. It emphasises, even more than any of the caves further north, the extraordinary fact that palæolithic artistic work was executed by artificial light, far from the entrance and in positions difficult of access. The place where the best collection of drawings is found is a narrow little side passage, some 200 metres from the entrance. Since these drawings show that the primitive visitors to the cave attached great importance to this spot, the explorers gave it the name of *Le Sanctuaire*. It is necessary to proceed another 150 metres, nearly to the end of the cave, to find the most striking and

interesting painting in it. This is a large drawing of a fish on the wall of the last chamber, hence called the *Salle du Grand Poisson*. It is painted in black and is a very good representation of the animal seen from the side, the caudal fin being well shown. This, with some other incomplete drawings, are the only palæolithic paintings of fish yet discovered. The other mural drawings of fish, as at Niaux in the Pyrenean region, Gorges d'Enfer in Dordogne and the Cantabrian cave of Pindal, are engravings.

The majority of the paintings on the walls are geometric or inchoate designs which Abbé Breuil has done his best to analyse, classify, and, as far as possible elucidate. The drawings may thus be arranged in two groups, zoomorphic and inanimate. But they may also be classified in three divisions according to colour, a classification of great importance, because it is also one of age. The oldest paintings are yellow in colour, then come the red, and lastly the black. It is possible moreover, to distinguish, amongst the last, those of palæolithic age from others of more recent date.

The *yellow paintings* are the most ancient, and are found chiefly in one part, of the cave, called by the explorers the *Galérie Inférieure*. They are of two kinds, serpentiform and animal. So many of the former kind are collected in one part of this gallery that the name *Salle des Serpents* was given to it. The *serpentiform designs* are composed of parallel curves in twos, threes, or fours, and recall the meandering lines traced in the clay surface at Gargas and Hornos de la Peña. There is this further resemblance, that amidst these curved lines are figures of animals. The animals represented in yellow are horses, ibex, hinds, and bulls. In their style they resemble the animal paintings of the Cantabrian caves, especially the yellow paintings of Castillo and La Pasiega, and they may well be referred to the same age, viz., the Aurignacian.

The *red paintings* are in thirty cases in contact with the black, and their relative position shows that they are the older of the two. They may be said to present a special phase of the art intermediate between the yellow and the black. The red animal figures include the horse, bull, hind, and bison. The presence of the last, evidently the same as that of the Cantabrian caves, is of much interest, for, excepting two small figures at Cogul, it has not been observed in Spain outside the Cantabrian district. The *inanimate* designs include *claviforms* like those at Niaux, Altamira, and Pindal, and spirals. The latter are in some instances of a complicated character. Piette discovered spirals engraved on reindeer horn in Pyrenean caves, and M. Breuil has suggested that these Magdalenian spirals were derived by stylisation from the horns, eye, and ear of the bison. But there does not appear to be any ground for associating these with the spirals at Pileta. Possibly they may represent serpents, and be comparable to the figures of these animals drawn on the ground by the Australian aborigines in connection with their totemic ceremonies.

The *black paintings* fall into two groups, one of palæolithic age, and another of more recent symbolical designs. The *palæolithic* group comprises: (1) Animal figures. (2) Serpentiform designs. (3) Schematic designs of men, animals, and other subjects. About 80 figures of animals have been recognised, of which, however, a good many are mere fragments. There are 17 of the ibex, 14 of the horse, 9 of the stag, 17 of bulls, and 6 of fish. These paintings are mostly found in three places not far apart, viz., a small recess out of the central part of the cave, called the Salon, the little passage already referred to as the Sanctuaire, and a part of the lateral gallery, called the *Galérie des Bouquetins*. In the last is a very good painting of an ibex. It is in fact the best animal drawing in the cave, and recalls strikingly similar Cantabrian figures.

In the *salon*, more than 150 metres from the entrance, are several panels of animal figures, including those already mentioned, and, in addition, a fish, a large but incomplete drawing. In the *Sanctuaire* the right overhanging wall is completely covered with black paintings of animals and inanimate designs. They are superposed on red paintings, and the wall is entirely furrowed with markings of bears' claws. Here are also two representations of the human body in the form of highly-stylised figures. Body and limbs are mere lines; the head of one is triangular, of the other oval in shape. They recall some of the figures on rocks in South-east Spain. The next part of the cave contain a little lake, and beyond this there are not many black figures of animals, but those found there are of exceptional interest, for they are of fish. In a short *diverticulum* are incomplete drawings of two fish. These are curious because they are recognised not by the colour, which has perished, but by the appearance of the clay it formerly covered. The paint has acted as a sort of protecting varnish, with the result that the clay beneath it has not been so fully worn away as that covering the rest of the surface.

Near the end of the cave is the remarkable large painting of a fish already referred to. *Serpentiform* designs are found almost everywhere where animal figures exist. They raise the same question as to their meaning as do the yellow figures of the same shape, but they are rarely composed of series of parallel lines. Some of these designs are possibly tectiforms, but they are certainly not so convincing as those seen in the Cantabrian caves. The more recent black symbolical designs are very numerous, and are the only ones the first explorers noticed. They are the *Letreros*, the celebrated inscriptions which no one can read. "They were well suited in virtue of their " number and good state of preservation to strike the imagination of peasants always " in search of treasure hidden by the defeated Moors." They are found especially in the *Galerie Inférieure*, in the neighbourhood of the lake and beyond; strikingly so in the chamber containing the painting of the great fish. The most interesting of these designs are the so-called *Pectiforms*, 200 of which have been counted, the number of teeth varying from 3 to 15. They recall the similar designs observed at Altamira and Marsoulas. In the latter the teeth are often turned upwards, a fact which gave rise to the idea that this design represented a stylised hand. This form is not seen at La Pileta. These most recent designs probably bring us down to Neolithic times, to which period no doubt belonged the numerous pot-sherds found in some parts of the cave. Some of this pottery is ornamented with incised designs.

Such in its main features is the decoration of this interesting cavern. The paintings evidently extended over a long period, and their relations one to another are not yet perfectly and fully clear. But one important fact emerges. It is that the earliest artistic drawings were the work of a people closely related to, if not the same as, those who ornamented in a similar way the walls of the Cantabrian caves.

E. A. PARKYN.

ANTHROPOLOGICAL NOTE.

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INSTITUTE.

29

(Donor indicated in parentheses.)

Träskfolket svenska Rhodesia-Kongo-Expeditionens Etnografiska Forskningsresultat. By Eric von Rosen. 458 pp., 3 Maps, 78 Plates, 401 Figures in text. Albert Bonniers, Stockholm. (Author.)

West Indian Studies. By D. Hedog-Jones, M.A. 7 x 4 $\frac{3}{4}$. 97 pp. Grenada, B.W.I. (Author.)





ORIGINAL ARTICLES.

With Plate C.

New Guinea: Netherlands.

Seligman.

Canoe Prow Ornaments from Netherlands New Guinea. By **30**
C. G. Seligman, M.D.

Plate C represents a number of canoe prow ornaments from Netherlands New Guinea now in the Vienna Museum (Nos. 14660 and 14662-14664). Dr. Heger, who kindly had these specimens photographed for me, could not tell me their exact provenance, but a comparison with those figured by de Clercq and Schmeltz (*Ethnographische Beschrijving van de West-en Noordkust van Nederlandsch Nieuw-Guinea*, 1893, Plate XXV) leaves no doubt that they came from the country immediately to the west of Humboldt Bay; indeed, it is possible that the largest of the specimens here reproduced is identical with one of those (No. 12) figured by de Clercq and Schmeltz.

In the ninth volume of MAN (1909, 16) I figured and described a series of carved canoe prow ornaments from south-eastern British New Guinea. These specimens, called *munkuris*, were collected upon Murua (Woodlark Island), and resemble those from Netherlands New Guinea in general form, i.e., they consist of a flat, much-carved portion above a plain peg-like projection which serves to lash the object to an upright in the prow of the canoe. A superficial glance would suggest that the resemblance ends here; the carvings on Plate C are for the most part easily recognisable and scarcely conventionalised representations of birds, whereas the carving of the Massim *munkuris* consists of the elaborate scrolls and coloured intaglio areas characteristic of the district, which may or may not be surmounted with small, decorative, and highly unrealistic representations of birds. But reference to the explanations of the carving on these *munkuris* given me by natives of Murua shows that much of the conventionalised carving, including the scrolls, is recognised as representing birds, so that it would seem that these *munkuris* and the Netherlands New Guinea canoe-prow ornaments are morphologically equivalent. Birds are the most important of the linked totems of the Massim, and though I cannot say that all the birds represented on the *munkuris* are totem birds, the reef heron, which seems most commonly represented, and the cockatoo certainly are.

This suggests that the natives of that part of Netherlands New Guinea may have totem birds; time should prove whether this conjecture is correct or not, but in any case it is interesting to speculate on the factors which have caused one set of people using these canoe ornaments to carve them in elaborate conventionalised scrolls, while the carvings of the other are comparatively naturalistic.

The first thing to note is that a distance of more than 400 miles separates the Cape Nelson promontory, the western limit of the Massim, from Humboldt Bay. The coast line of British New Guinea accounts for about 100 miles, and so much material has passed into our museums from here that I think it can be definitely stated that no canoe ornaments of the type under consideration occur in British New Guinea west of the Cape Nelson promontory. Probably this also holds true for the 300 miles of coast line intervening between the old boundary of the British possession and the Netherlands boundary; at least I have seen none in the Vienna, Munich, and Cologne Museums, nor have I noted any record in literature. The considerable geographical gap between the two peoples using these canoe prow ornaments suggests either: (i) that a continuous series of related peoples who made such ornaments once stretched from the Massim area to Humboldt Bay; or, (ii) that either Humboldt Bay or the Massim area is the home of this particular type of bird canoe-prow ornament, and that a migration is responsible for its appearance

some 400 miles away. In any case it is necessary to account for the scrolls of the Massim *munkuris*, and I suggest that the Humboldt Bay ornaments represent the more archaic form which became modified in the Massim area by the influence of a foreign culture, Polynesian or Melanesian, of which there is abundant evidence in the district. In other words, while the basic idea of the ornament remained unaltered, a people who may almost be said to have "seen" in curves (if not in spirals) succeeded in imposing their idea of representation upon the simpler animal forms of the folk with whom they mixed.

C. G. SELIGMAN.

Archæology.

Moir.

The Evolution of the Rostro-carinate Implement from the Primitive Kentian Plateau Implements. 31 By J. Reid Moir.

In a paper read recently before the Royal Anthropological Institute "On the Evolution of the Earliest Chelles Palæoliths from the Rostro-carinate Implements,"

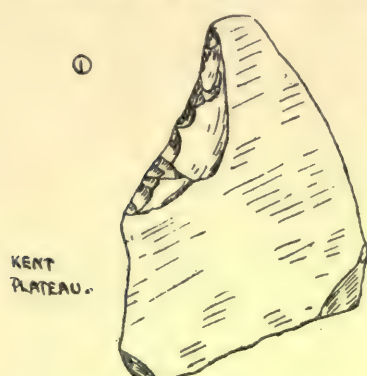


FIG. 1.

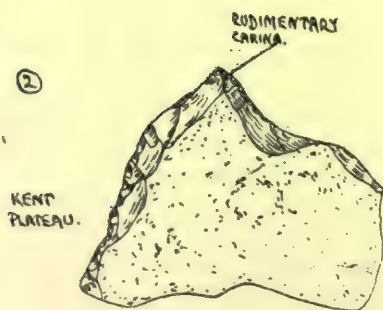


FIG. 2.

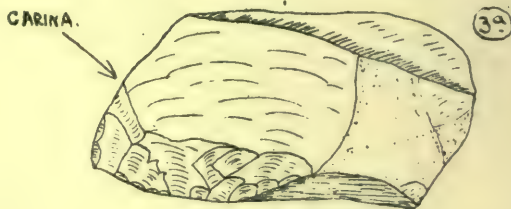
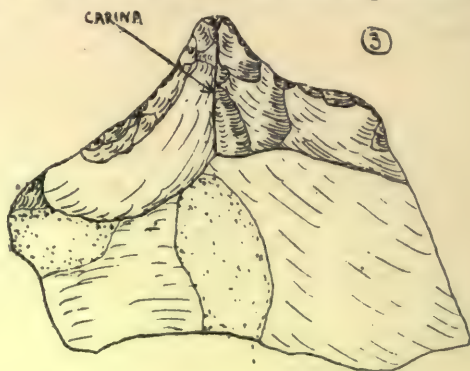


FIG. 3.

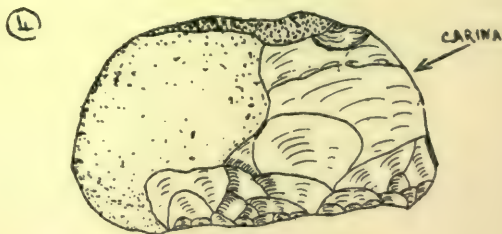


FIG. 4.

and to be shortly published, I described the manner in which, in my opinion, the earliest Chelles palæoliths were evolved from the rostro-carinate implements. In this note I propose to set forth my reasons for believing that the rostro-carinates have been evolved from the primitive Kentian plateau implements. Fig. 1 illustrates the earliest form of implement known—it is simply a tabular piece of flint steeply flaked on one side into a hollow. Fig. 2 illustrates the next stage, in which both sides of the flint have been flaked—the point of junction of the two flaked edges forming the well-known type of primitive "borer." The conjunction of the fracture surfaces of the

two hollows has also given rise to a ridge which, in my opinion, represents the first stage in the production of the carina of the rostro-carinate implements. I would suggest that the most primitive pointed implement was evolved in a manner similar to the Le Moustier (palæolithic) *pointe*. First one edge of the flint was used as a *racloir* and then the other; the result being the formation of a well-defined point. Fig. 3 illustrates an implement found beneath the shelly Red Crag at Martlesham, Suffolk. (These primitive forms are extremely rare in the sub-crag detritus bed.) In this case a tabular piece of flint shows two hollows on either side of one end, as in Fig. 2, but the hollows are more accentuated and their respective fracture surfaces have conjoined and produced the well-known carina of the rostro-carinate form (Fig. 3a). The next stage is illustrated in Fig. 4 (the implement was found below the decalcified crag in the brickfield of Messrs. Bolton & Co., Ltd., Ipswich), where the two hollows have become still more marked, and have resulted in the formation of a definite "beak" at the anterior end of the implement. It seems evident that the rostro-carinate in its earliest stages is simply a development of the most primitive point. It seems evident also that the earliest Kentian plateau implements were used as "hollow-scrapers," and that with their gradual improvement a much more effective cutting edge was *inevitably* produced in the formation of the carina. The transition from the oldest rostro-carinates to the earliest Chelles palæoliths seems equally clear. The drawings illustrative of my remarks are severely diagrammatic, but the actual flaking of each specimen is accurately defined. J. REID MOIR.

Linguistics.

Thomas.

Notes on Kukuruku. By N. W. Thomas.

32

In 1911 I published in my *Report on Edo-Speaking Peoples*, Vol. II, pp. 143-146, some notes on the grammar of the Wano dialect of Kukuruku. The accompanying fragment of a story illustrates some of the points.

The pronunciation of different informants varied considerably, some showing a strong tendency to palatalise, and *ukpuv'oba* (kokonut) was heard as *ukpuj'oba*; others made stops into fricatives, e.g., *ore* for *oke*, which was also heard as *okxe* and *oke*; another informant spoke *oge* as *okxe*; conversely *avi* was heard as *abvi*, *aje* as *age*; in each case I take the ordinary pronunciation as the standard.

There seem to be three, if not four, *t* sounds, one interdental as in *ofa* (tree), represented by *f*, which closely resembles an English *tth* (the first *t* unexploded), and must be carefully distinguished from *t* (alveolar) as in *oto*, ground, and *ɬ* (postdental), as in *ofa*, soap. In *t* the tip of the tongue is turned up as in a cerebral *t*, but the tip touches the palate close behind the teeth and is then drawn sharply back; the same sound is heard in *itu* (nine), but it is less pronounced. A pure cerebral *t* of the ordinary kind is also found, I think, in a few words.

Corresponding to their postdental *t* and *ɬ* is an alveolar *r*, in which the tongue is also turned back but touches the teeth, e.g., in *ra*, before the articulation; it resembles *d*.

There is an ordinary *l*, not quite the same as English, and a mixed *l* with vibration, here transcribed as *ḷ*. Corresponding to the labio-velar 'p, 'b (= *kp*, *gb*), there is a similarly formed *m*, bearing the same relation to 'b that *n* does to *n*.

The vowel sounds include front and back *a* as in *agwa* (dog), *agwa* (crow), and a diphthongised *a* as in *ida* (night), pronounced with the tongue against the lower teeth, not unlike English *a* in *have*, but longer. A variant of this sound is found in *ofei*. Open *o* and *e* are denoted by *o*, *e*.

Four tones must be distinguished—high, high-mid, low-mid, low; in a small number of nouns I found the following combinations:—1—4 (twice), 2—3 (twice), 3—1 (twice), 3—2 (five times), 3—3 (twice), and (2 + 3)—2, (3 + 4)—4 (one

each), the pitch being approximately *g* or *f* sharp for high, *f* for high-mid, *e* for low-mid, and *c* for low.

In the text the following points may be noted:—

(1) The third pers. sing. subject pronoun is *o* for persons, *e* for things; probably the vowel varies in the latter case according to the prefix vowel of the noun referred to; this pronominal *e* may account for the form (not found in the text) *on oyāi* (this man); here the pronominal adjective *ona*, is prefixed, contrary to the usual rule of the Edo languages.

(2) The 3rd plu. is *e*, but *a* is used in an indefinite sense, e.g., *a dza do aki*, which may be translated by a passive construction, "the market is"; but possibly *a* in this case is assimilated to the final *a* of *Amiya*. The object pronoun is *la* for both persons and things, but *e* may be used for persons; there is also a form *emi*; this form is perhaps seen in *Ego ne lu mi*, which seems to mean "Ego who forged them," but may perhaps mean Ego of Elumi, *elumi* being one of the days of the week; elision of the second vowel is also seen in *ukpugo* (cowry), pl. *ikpigo* or *ikpego*, the full forms being *ukpo ego*, *ikpi ego*: *ukpo* is a generic term for a small round thing.

(3) The form *uwuose* is abnormal; *ise* is the ordinary word for five, but special terms for the counting of cowries are not uncommon.

Omoga lag Ego, eb efa lag iyo la e fe via la, in efa lag
Omoga and Ego, when father and mother their they bore them, then father and
iyō la egumi; eb e fe gu, in Egi o ra dua la; eb Egi o fe mie
mother their die; when they died, then Egi he goes meet them; when Egi he saw
la e veva, o ra gw o ba; o dza o ba: o mi e ue mo ekbebe; o ba
them two, he goes tell king; he then (to) king: he sees those who have trouble; king
o dza la: ra d osake ekbebe.
he then (to) them: go drink poison (for) trouble.

Eb efegwefegweta e fe fo olo re, e ra d osake ekbebe; Omoga
When next day it began (?) go, they go drink poison (for) trouble; Omoga
lag Ego e dza vo ema; in e ra; e dza t iko nits Ogiōfa
and Ego they then take things; then they go; they then reach house of Ogiōtha
re; e dza ra wa x Ugiōfa o xi okpisa; e dza p iko ya
come; they then go meet that Ogiōtha he is old man; they then clean house at
kin Ogiōfa.
round Ogiōtha.

Ogiōfa dza ya la: eme wa lu? Ego nelumi o x aki o do.
Ogiōtha then to them: what you do? Ego nelumi she that market she goes.
Omoga o x olu o tse. O dza f ikpego la ejie, in o f
Omoga she that cotton she spins. He then takes cowries they four, then he gives
eva n ona, in o f eva n ona; in Ego nelumi o du ikpate aki
two to this then he gives two to that; then Ego nelumi she puts calabash market
oto; o du ikpego eva kwo; o kia wa; in o d ebits
(on) ground; she puts cowries two inside; she goes on; then she goes house (?) of
Okpotobegyesomi re.
Okpotobegyesomi go.

O oli: fe lo mi ugye no fe d aki Opiemere; in o fe
She to him: make her see road they take go market Opiemere; then he makes
o mi ugye; in o kia wa; in o d ebits Asilogye re; Asilogye o
her see road; so she goes on; then she goes house (of) Asilogye go; Asilogye he
f o mi utogye; in o f o d ebits Ainya re; o digwa
makes her see road; so he made her go house (of) Ainya go; she kneels (at)

ode Ainya; in o pi oxā: "Ainya kunyo ma ya tse. Ainya, kunyo door (of) Ainya; so she put song: "Ainya, open for us, please, Ainya, open ma ya tse." In Ainya o kunode a; o fere iko; in o ku for us, please." Then Ainya he opens door his; she enters house; then she puts ema ere. things there.

Unode Ainya a dza do aki; in o f ikpego eva m obq Door (of) Ainya they then meet market; so she takes cowries two in hand bare aki; in o f ukpugo okpa d ifefe, in o f ukpug okpa go market; so she takes cowry one buy ground nuts, so she takes cowry one d ikpioi; in o f ikpioi gba; in o f ifefe gba; in ikpotso buy calabash seed; so she takes seed spread; so she takes nuts spread; so women e bare; in e ra wa x o f ifefe gba; in okpotso okpa o y they come; then they went meet that she took nuts spread; so woman one she to oḷi: f ifefe na lo de; in o y oḷi: de; in o y oḷi xi o d her: take nuts give her buy; so she to her: buy; so she to her that she buys uwe; in onoke o bare; in o y oḷi x ifefe Ego x bag (16,000 cowries); so other she comes; so she to her that nuts (of) Ego that ona; a x a fe la ny omi, ā ge f ume yo; xi o d those; they when they put them in soup, they not put salt there; that she buys emi; in e xa eno; in oy okpa de l emine; in o d them; so they dispute; so person one buys them bigger (price); so he buys uwuose; in o ka uwuose; in o vo ifefe. bags five; so he counts bags five; so he takes nuts.

In ikpotso wewe e ge bare; in e ra wa x o f ikpioi gba; So women other they again come; so they go meet that she takes seed spread; in okpa y oḷi: xi o ge de uwe; in onoke o bare; in o xi so one to her; that she again buys (for) bag; so other she comes; so she that o de uwuose; in o vo ikpioi er okpa n er okpa e ke; in she buys bags five; so she puts seeds place one that place one it in left; so ay ewewe e ge bare in e ra lu inyo ikpioi n oy okpa o people other they again come so they go do same (with) seeds that man one he ge de uwuose. again buys bags five.

Ethnography.

Migeod.

The Racial Elements concerned in the First Siege of Troy.

By **33**

F. W. H. Migeod.

Mr. Harold Peake, in his article in the *Journal*, Vol. XLVI, p. 154, I think rejects rather too absolutely such historical evidence as we have. He places the fall of Hissarlik II in about B.C. 2225, on an irruption of northerners from beyond the Danube. Now our sole historical knowledge of Troy is derived from Homer, and although much may be allowed for poetic licence, there is nothing vague in the narrative. It is indeed hard to get over the fact that Homer says that the war was waged by the states of Greece itself united in a confederacy; and he further amplifies his record by giving the number of ships each state supplied. Another important point is that Homer recognises that the speech of Trojans and Greeks was mutually intelligible. At least that is what one may infer from their intercourse. It may, therefore, not be impossible that the Trojans were part of the great Ionic race which rose to high civilisation, and in later centuries imparted its culture to Greece proper.

The next record we must turn to is that of Moses. Moses, writing about

B.C. 1500, gives with precision the relationships of the neighbouring nations as known to him. He states which were of kin, and it is clear from his narrative that these nations were already in the localities in which he knew them some five or six centuries before his time. He states, which is what concerns us here, that the nation of Iun (for Javan was so written in the ancient script before vowel points were added some six centuries A.D.) inhabited the islands (of the Ægean Sea), and that they sent out colonies. It may, therefore, be inferred that the Ionic or Greek speaking peoples were to be found in islands of the Ægean Sea as well as on the shores of the neighbouring continents. As this period was, it may be accepted, not far removed from the date of the destruction of Hissarlik II as computed by Mr. Peake, we have some support for Homer, who would scarcely have composed his epic in order to relate the doughty deeds of unknown barbarians rushing out of the far north.

It remains now to reconcile the evidence put forward by Mr. Peake with that of Homer and Moses. This is possible if it can be shown that the invaders had, before attacking Troy, settled themselves in Greece, and had been there sufficiently long to have completely merged into the local population, and to have adopted the Greek language (or its then prototype) to the loss of their own. To do this Mr. Peake would have to antedate the stream of invasion he refers to as passing into Thessaly very considerably; and this inroad would have to be carried right down into the Peloponese.

F. W. H. MIGEOD.

Sudan (Anglo-Egyptian).

Shaw.

Jieng (Dinka) Songs. *By Rev. Archibald Shaw.*

34

A Jieng song is generally in vogue for a limited time only. Any new circumstance, such as being raided by another tribe or the rise of a new *tiet* (one who claims to be a prophet or to have special intercourse with the Divinity), produces a fresh series of appropriate songs or hymns. Songs may also be acquired from a neighbouring Jieng tribe and adapted to fit the new dialect.

Those sung by the Bor tribe of Jieng (east bank of the Bahr el Gebel) are divided into three classes, such division being possibly due to the varieties of rhythm employed. The names of the classes are forms commonly used as the names of men, but my Jieng informants cannot trace them to any actual persons, and I am unable to say whether the same names and divisions hold with other Jieng tribes.

I.—DIET KE (SONGS OF) YAI.

These are not sung to the drum. One man sings the solo facing the remainder, who alternately crouch in a densely-packed group and then rush forward to a new position. The women follow closely with shrill cries, making mimic thrusts with spear hafts at the men.

The first example is the chief war-chant of the Bor tribe. It is used on important occasions of ceremonial, and also by parties of men doing combined work, such as hauling heavy timber, &c. Author not traced.

The second was composed by a *tiet* named Wal, of the Aliab tribe, an account of whom is given in a Note by Dr. C. G. Seligman in MAN, 1915, 20. Only one man of the Cic tribe visited Wal, and the song illustrates the displeasure of his "spirit," Dengdit, with the Cic tribe in consequence of this neglect.

A.

(Solo.)

Ye gon akwain cok e noknok

Ci nong heden ca loi e ye.

(Solo.)

The vulture follows my steps with flapping of wings

As if there were something that I had done for him.

(*Chorus.*)

Muo wai e Nyandior, wai ana ran.

(*Solo.*)

Gon engo ein ye ngwet ne ken an lo?

(*Chorus.*)

E u ya ngwet, ya yi.

Waidie ay'acuil bieth,
Waidie aye gon bieth ke cuor.

"Cuor," the blackheaded vulture.

"Nyandior," daughter of Padior, is the name of a tribe-section.

(*Chorus.*)

Grasp the spear of the Daughter of
Padior,
A spear for killing man.

(*Solo.*)

Vulture, why art thou not famished, as
though
I had not gone (forth to fight)?

(*Chorus.*)

For thou sayest, I am famished, yea it
is thou,
My spear is followed by the kite.
My spear is followed by the vulture and
the "cuor."

B.

(*Solo.*)

Eye—Aiyan, aiyan, aiyan.
Wengdien ci gau riam ci koriom

Aye wuot a wai.

Nongku ater-e, wo Cic de Lou.

(*Chorus.*)

Un nin we-a (alternative, Un rec ben).

Aiyan aci gau riam ci koriom

Aye wuot a wai.

(*Solo.*)

Ye—Ran aca mioic ne bainde
Ku kui mu-e.
Ci ran bain de un uoic.

(*Chorus.*)

Ca ut ngwang ne keraic.
Aiyan aci gau riam ci koriom.

Aye wuot a wai.

(*Solo.*)

Yellow kine, yellow kine, yellow kine.
My cattle have trodden down the bent
reeds like locusts,
(So that) the cattle-kraals blame me
continually.

We have a quarrel, I and the Cic of Lou.

(*Chorus.*)

The kraal that sleeps away (alternative,
The kraal that refuses to come).
Yellow kine have trodden down the bent
reeds like locusts,
(So that) the cattle-kraals blame me
continually.

(*Solo.*)

I have presented man with his priest
And he cannot comprehend.
Man has failed to find his father's priest

(*Chorus.*)

I have threatened the kraal with evil.
Yellow kine have trodden down the bent
reeds like locusts
(So that) the cattle-kraals blame me
continually.

The inference of the first three lines, which recur as a refrain, is that Dengdit has blessed man with innumerable cattle, so that the grazing grounds in the marshes, whither the herds are taken in dry season, are not sufficient. The italicised syllables are of musical, not grammatical, value.

Dengdit, the "father" of man, speaks of Wal as his "priest."

DIET K'ARIR (SONGS OF ARIR).

These are accompanied by drums and dancing. The dancers merely jump in time with the drum, keeping the two feet close together and the whole body in a

certain approved position. There is no particular order, apart from the dancers being grouped round the drums, which all face. There are frequent interludes in the dance, during which the drum, song, and jumping cease, and each man devotes himself to chanting his own ox-names and improvising his own praises.

A.

(Solo.)

Eye—An ye remdie awou puol
Ca bain kong you eben-e

Weng yar awa!
Atong ke yar ager.

(Chorus.)

Ca bain kong you eben,

Aiyandien e bain Adol-e.
An cie dier e wei-e.
An ci cien randien nyie.
Kedien luel aban kain d'apiou guor.

Ca nom lo dil ne wuoteie yeron.

Ya gam tong ku dol wuot a.

Ca tongdie thar akol ku alo te,

Ban ka indie guor enong ke luelku wo ran.

(Solo.)

Eye—Kwalkuot remdie gam tong.

(Chorus.)

Ku na lui Aicie ke wo be rom ne Remlil.

Ye Nuer kat abi duk-e.
Weng yar e Lualdit!
Acan e dier e wei.

(Solo.)

I am a host loosing forth sound.
I have forestalled every chief for first place.

White cow of my father!
It is like the straight-horned white one.

(Chorus.)

I have forestalled every chief for first place,

My yellow cow of chief Adol.

I fear not for life.

I am without a companion known.

The matter for me to discuss is that I will pay back the debt of my heart.

My head was dazed for my cattle-kraals are but two.

I determine on battle, and the cattle-kraals laugh at me.

My battle I fought from midday until evening,

That I might pay back the debt for the matter that I and another discuss.

(Solo.)

Kwalkuot, my company, is determined on battle.

(Chorus.)

And if the White Man be absent we will meet at Remlil.

The fleeing Nuer will return (home).

White cow of Lualdil!

I did not fear for life.

Composed in 1914 by the men of Atet, one of the larger Bor clearings, on the occasion of the northern Bor Jieng being raided by the Nuer tribe. The raid was stemmed and turned by the warriors of Atet.

Adol, the chief of Atet.

Kwalkuot, one of the chief "age-fellowships" of Atet.

Remlil, one of the Atet cattle-kraals.

Lualdit, chief ancestor of Adol's people.

The second line refers to Atet taking the lead in resisting the invader.

The "debt" refers to a long-standing feud between the Nuers and the northern sections of the Bor tribe.

Wut (plur. wuot), cattle-kraal, is used of (1) a herd; (2) the owners and herdsman of a herd; (3) the permanent camps or kraals to which the herd goes in rotation.

B.

(Solo.)

Eye—Deng e Col amei a toug-e.

(Chorus.)

Duona ber lo rir we ei thiang de dau.

Koin a tit, wo bi wai liab.

(Solo.)

Eye—Wo ram wo yi, un e Kolok.

(Chorus.)

Wuot ya gwai elanghon;

Wuot ya mai tong.

Ne yin kuic aterdie ku ba ngo nyi?

Sung by men of Gwala clearing, who are at enmity with Deng e Col, chief of Adol clearing.

Kolok, an ancestor of people of Adol.

DIET K'AMUK (SONGS OF AMUK).

These are accompanied by drums and dancing. The men are formed in single circular file round the drums, each man facing his neighbour's back. The women are on the outer side, and face towards the centre. All jump as before. At a certain change in the rhythm the men break from their circular line, and each dances with a female partner, by whom he has been previously selected. The partners dance (jump) facing and close to each other, but do not touch.

A.—AKUOTDIT.

(Solo.)

Moin d'Aman, yengo ye nyang koic-e?

(Chorus.)

Akuot thundie, yengo ye nyang koic e
rec-e?

Ca thuku bai ye nyang yi Jong e Garang.

Remdien de wun e Col e Nial.

Yaka dai mioic, alet e wo.

Adorbain, ye mith mu ne yilec,

Ca cir kwe, ye Bolong de yuom-a.

Din e nyuie e tim nim ne weryou.

(Solo.)

Husband of Aman, why do you refuse
people?

(Chorus.)

Akuot, my relative, why do you refuse
people fish?You have overlooked your relatives in
refusing Jong e Garang.My company of the kraal of Col e Nial,
Hasten and cease not to make presents
to him, lest we be abused.Adorbain, you who retain food in your
teeth,You are like the "fish-eagle," Bolok of
the bone,The bird that sits on the tree tops
beside the river.

The line, "Ca cir" is also used as a solo at times.

"Akuotdindie," my Akuotdit, is alternative for "Akuot thundie."

Composed by the people of Adol clearing (chief Col Maicar, also known as Col e Nial) about the year 1913.

A man named Garang Anyang, whose cattle-names are Akuotdit and Adorbain, had recently married an Adol girl named Aman. He churlishly refused to share his fish with Jong e Garang, a brother of Aman.

Line 5 is intended to be deeply sarcastic.

Line 6 is an insult. Jieng make a practice of carefully rinsing the mouth after food, and the words imply that Adorbain (Garang Anyang's cattle-name) is like the ox his name signifies, whose teeth are not cleansed after food.

Bolak is a name given to the fish-eagle.

B.—MAIYANCIE (or MAIYENCIE).

(Solo.)

Ya—Maiyancie-o, wok aci lat rioic.

(Solo.)

My men of Maiyan, we have been abused for being afraid.

(Chorus.)

Jal Abang kat ku nong ringdien de

Lūol akuoin ngo.

Guom keraic adi-ya?

Kuoi e lo wun de Lual.

(Chorus.)

Abang takes to flight, and I have my flesh of Luol to help me.

Why do I suffer evil?

Weeping has gone to Lual's kraal.

(Solo.)

Ya—An yen e nyircie lat ku pal erun-a.

(Solo.)

I keep having my maidens abused, and forgive it for this year.

Ya—An yen e duocie lat ku pal erun-a.

I keep having my boys abused and forgive it for this year.

(Chorus.)

Ater ater jamdie wo yin.

Ne yin ya wai cuat e Maicar ro piny,

(Chorus.)

My speech has a quarrel with thee.

When I rebuke thee Maicar throws himself upon the ground,

Ca ngo uoic, baineie?

"What have I done amiss, my chiefs?"

Ater e Maiyan kuoi alo wun de Lual.

For a quarrel with Maiyan weeping goes to Lual's kraal.

Composed by the young men of Palek clearing in the year 1914, when the age-fellowship most to the fore was named "Maiyan" (yellow ox) or "Agok" (baboon). The occasion was a fight with a neighbouring clearing, Abang. The men of Abang fled with their cattle, and Maicar, their chief, when overtaken in the pursuit, threw himself on the ground crying abjectly, "Ca ngo uoic, baineie?" ("What have I done amiss, my chiefs?")

Lūol, ancestor of Palek.

Lual, ancestor of Abang.

ARCHIBALD SHAW.

REVIEWS.

Ethnography.

Roscoe.

The Northern Bantu: An Account of some Central African Tribes of the Uganda Protectorate. By John Roscoe, M.A., Rector of Ovington, Norfolk. Formerly of the Church Missionary Society. Cambridge: University Press. 1915.

Dr. Roscoe has supplemented his monumental work on the Baganda with this account of several less known but very interesting tribes in the territories adjoining them. Though he modestly remarks that "the account which I have given of these tribes, other than the Baganda, is fragmentary and incomplete; the short time which I could devote to the study in my vacations precluded the possibility of a thorough investigation," the ordinary reader may well be amazed at the amount of information packed into these professedly desultory notes. The people included

in this survey are: the Banyoro, the Banyankole, the Bakene, the Bagesu, and the Basoga; and some additional notes on the non-Bantu Bateso and "Kavirondo" (Jaluo) form an appendix.

Perhaps the most interesting description is that of the Bakene, a highly specialised race of lake-dwellers, found on Lake Kyoga and the adjacent waterways. They appear to be akin to the Basoga, and their traditions indicate emigration from Busoga, i.e., from the east or south-east. None of the clan-names given on p. 148 are to be found in the lists of Soga clans on pp. 205-7. But the names are only drawn from one small area near the River Mpologoma, and do not exhaust even that district. Three of the totems mentioned for the Bakene—the husk of millet, the guinea-fowl, and the otter—also occur among the Basoga, but in the absence of further information it is impossible to say whether this implies any connection. It may be of interest to note that one of the Soga clans—Mugwano—has the same name as one of the thirteen Pokomo tribes on the Tana. But of course nothing can be made of an isolated point like this. The Banyoro and Banyankole have the following names in common—Basingo, Baitira, Bakimbiri, Basambo, and Batwa. The totems, however, are different, except, perhaps, in the case of the Baitira, whose second totem among the Banyoro is "a woman nursing a female child," while in Ankole they have as their totem "the human breasts—Mabere." The well-marked Hamitic strain in the pastoral clans of both Bunyoro and Ankole suggests comparison with the Galla, and many remarkable points of contact are brought out by Dr. Seligman (*Journ. Roy. Anthr. Inst.*, XLIII, p. 651, &c.).

But there is no resemblance, so far as I can discover, in any of the clan-names (see list of Galla clans in MAN, 1915, 10). Those of the Banyoro and Banyankole appear by their form to be Bantu, and may have been adopted in comparatively recent times. Clan names are frequently subject to modification. The Bantu Pokomo have Galla names for many of their clans, some of them co-existing with an older Bantu appellation. So do the (whether Hamitic or not) non-Bantu Wasanye. In both these cases the names seem to have been adopted by the subject race, and some of them are found among the Abyssinian Galla, e.g., Karar and Karayu, which, according to the Galla themselves, are two of the oldest clans.

The first legendary king of Bunyoro (p. 6), though his story, as here given, is but vague, recalls Kintu of Buganda, and also the Galla tradition that the ancestor of the Uta Laficho clan descended from the sky. I do not know whether it might also be connected with the Pokomo legend of Vere.

The chapter on the Bagesu of Mount Elgon deserves special attention, as they appear to represent a very primitive stage of Bantu culture, and little has hitherto been written about them beyond what is to be found in Mr. Purvis's *Through Masaba to Mount Elgon*. Like the Kikuyu, the Bagesu do not bury the dead. (Mr. Purvis, however, says that an infant or an old person is buried in the house, or just under the eaves, till the birth of the next child, when the bones are taken up and thrown out.) Like the Nandi, and the "Nyika" tribes of East Africa, they respect the hyæna, though they will kill one which has seized a goat from the flock. No doubt the reason given by Dr. Roscoe for this respect (the connection of the hyæna with the dead) is the true one, and the Giryama, who bury the dead in the ordinary way, have either inherited the cult from a period when this was not done, or borrowed it from some other tribe. Mr. Purvis notes that the hyæna "is not "classified in the language as other animals, but has received a name which puts it "on a level with persons." Gesu being about the most archaic Bantu language accessible to us, it is interesting to note the beginnings of a process which shows itself in different ways and to a varying extent in Ganda, Ila, Nyanja, Zulu—to mention no more—and has reached its conclusion in Swahili, where logic has so far

triumphed over grammar that all names of animals are treated as belonging to the person-class.

Not least among the minor calamities entailed by the present disastrous war is the fact that it has prevented Dr. Roscoe from continuing the inquiries for which he is so eminently fitted.

A. WERNER.

China.

Leong—Tao—Hobhouse.

Village and Town Life in China. By Y. K. Leong and L. K. Tao. With a Preface by L. T. Hobhouse.

36

A book about China by two Chinese who have been students of economics and social politics in London is of interest to many besides those whose attention has been given to the ancient civilisations of the East.

Each author is responsible for one portion of the book, Mr. Leong writing the chapters on "The Internal Working of a Chinese Village," whilst Mr. Tao discusses "Town Administration" and "The Popular Aspect of Chinese Buddhism." In the last-named subject we are taken considerably beyond the social aspect of Buddhism, but without regretting the excursion.

Of late years China has been—and still is—in the midst of changes which, in a Western country, would have involved repeated disorganisation of the national life. That this has not resulted is due to the extraordinary stability of the Chinese social organisation. The great mass of the people, wedded to the soil, are little affected by the superficial convulsions which dethrone an emperor or crown a president.

Mr. Leong gives us a brief and clear account of the organisation which makes a Chinese village "an autonomous unit," and he emphasizes the fact that, "in its actual working, China is a huge republic within which there are myriads of petty republics." The supreme importance of the family and the clan, united by reverence for common ancestors, is the key to the study of Chinese institutions, since the principle extends beyond the bounds of the village or the town, and becomes a theory of national government. It is part of Mr. Tao's task, in the book under review, to show how the existence of a hierarchy of officials, from the Emperor or President downwards, is compatible with the self-government that prevails. "It is as representing Heaven that the Emperor looks after the welfare of the people . . . but, strangely enough, no theory of divine right has ever evolved from the ingenious explanation of the heavenly duty of the monarch." It appears that a president may represent Heaven nearly, but perhaps not quite, as well.

The Chinese are so far away from us, and so remote in race, language, and customs, that we are apt to judge them by their differences. In return, we are to them, or to some of them, Western barbarians—possibly even credited with *Kultur*—and if they sometimes study our laws and customs, the conclusions they may draw are not necessarily flattering. It is, however, gratifying to know, on the authority of Mr. L. T. Hobhouse, that "English is becoming for them the language of education," and we may hope that their study of our institutions will help them to avert or mitigate that commercial industrialism which is "the doom of the modern world." Few Englishmen could write of their own country in Chinese, and we have the more reason to feel grateful to the authors of this very interesting volume for helping us to gain an understanding of the basis of an older civilisation than our own. H. S. H.

Egypt: Archæology.

Blackman.

Les Temples immergés de la Nubie. The Temple of Bizeh. By Aylward M. Blackman. 4to, 72 pp., 42 Plates. 395. Cairo: Service des Antiquités. 1915.

37

This volume is another of the memorials of ruin by commercialism. The little

temple of Bizeh, like so much else of more value, has now been drowned by the Assuan dam. The removal of the temples to higher ground, which Sir John Aird was anxious to do without any profit to himself, was refused by the Government, and the world has for ever lost the only temple which was rich with original colouring.

The publication of the temples was entrusted to various scholars, and Mr. Blackman has treated of two other temples before the present volume. The whole of the sculptured scenes are described in detail, with the hieroglyphs. The few demotic and Greek graffiti are discussed. Then follow indices of (1) the divinities, (2) the attributes of the divinities, (3) the forms of head-dress, and (4) a general index.

The plates are excellent, giving amply large figures of the whole of these sculptures. These are, however, due to the great German expedition, which completely photographed all the sculptures of Nubia, in anticipation of the loss due by drowning them. This work, which neither the Egyptian nor the British rulers would undertake, is part of that help to science which will redeem Germany in the eyes of the future, in contrast to the ignoring of the higher side of life by our own rulers.

The peculiar feature of this temple was the insertion of a parabolic arch of small blocks, beneath a great lintel which still remains unbroken. The purpose of this was to transform the pagan aspect of monolithic building into the style of the humbler brick building of a church. When the sculptures were duly plastered and whitewashed, those who entered the archway, resting on late Roman capitals, would never be reminded that the building was due to another faith. This is, then, curious evidence of the æsthetic sense of connection between architecture and belief in the Egyptian mind.

W. M. F. P.

Egypt: Mythology.

Spence.

Myths and Legends of Ancient Egypt. By Lewis Spence. London: George G. Harrap & Co. 1915.

38

The author, who is best known for his studies on American mythology, takes pains to state that he has long devoted special attention to the religion of Egypt. His chapters include Exploration, History, Customs; the Priesthood, Mysteries, and Temples; the Cult of Osiris, the Great Gods, Egyptian Literature, Magic, Foreign and Animal Gods. He rightly lays stress on the importance of the Local Gods in the evolution of Egyptian religion. An interesting chapter is devoted to a criticism of the views of Dr. Budge, who believes that the religion was not based on Totemism. Mr. Spence assumes that "Bast" was originally a cat totem, "Sebek" a crocodile, "Ra" and "Horus" hawks, "Thoth" an ibis, "Anubis" a jackal. It is to be regretted that the scheme of the book did not allow a more detailed exposition of these theories. In fact, the chief complaint to be made against the book is that it attempts to cover too much ground. But it will serve as an useful introduction to the study of Egyptian cults and mythology. It is well illustrated, and the coloured drawings by Miss Evylyn Paul are decidedly striking. Scholars, however, will prefer to depend upon reproductions from the abundant material supplied by the monuments.

W. CROOKE.

Anthropology.

Balfour.

Theism and Humanism. By Arthur James Balfour. London: Hodder and Stoughton. 1913. 10s. 6d. net.

39

Mr. Balfour's Gifford lectures for 1914 will be read by us all with pleasure and profit, quite apart from their bearing on the particular subject of anthropology.

Thus, speaking for myself, as one must do in regard to a matter of taste, I should put Mr. Balfour first among living writers of philosophic English; and there are many things said in the course of this book that in point of expression as applied to thought of the speculative type are a joy for ever. Here, however, the reviewer's duty is to confine himself to the purely anthropological aspect of Mr. Balfour's defence of theism. But, at first sight, such a restriction of scope seems to leave one with very little to say. For Mr. Balfour's theme is not the argument from consent. He does not argue that, because every savage has his Mumbo Jumbo, there must be something in what the civilised churches teach. His point is quite different. He is out against naturalism and the agnosticism that it brings in its train. With all respect for the man who will not be put off with dreams and inventions, however flattering to the spirit, but insists on looking facts in the face in the interest of truth for truth's sake, he contends that such a man escapes his own notice in basing his whole rationalistic position on God; since God as the supreme value that embraces truth as an end in itself is presupposed in the effort to make good scientific truth at all costs. This, then, is his main thesis—that the highest values which life bids us realise, æsthetic, moral, intellectual, cannot be justified except by regarding them, not as the effects of natural processes, but rather as their causes—as manifestations of a helping, guiding force that somehow conditions human life by way of a providence and an inspiration. Yet because there is a "somehow" about it—because the way in which the force works in our lives is not wholly clear to us, and because it is apprehended in a partial and one-sided way, namely, in its relation to human welfare—Mr. Balfour terms his standpoint "Humanism."

For the rest, he tries to show, carrying the war into the enemy's camp, that naturalistic explanations fail to justify these highest values. They make them out to be mere by-products of evolution—natural values that have gone out of their way to become "denaturalised," as Nietzsche says. Just in so far as anthropologists may have been tempted to say the same thing about human feelings and judgments about beauty, goodness, and truth, do they come within the range of Mr. Balfour's strictures. But do representative anthropologists take that view concerning the first principles of human art, or conduct, or science? At any rate, Mr. Balfour does not try to bring it home to any of them. His concern is rather with the biologists, and, it would seem, mainly the biologists of a past generation whose naturalism hardly survived the nineteenth century as a fighting faith. To-day there is no longer any marked tendency on the part of biologists—or at any rate on the part of those anthropologists who accept a more or less exclusively biological standpoint—to preach any sort of dogma, positive or negative. Their present policy is that of "cultivating one's garden"—of working from certain strictly limited presuppositions, leaving it to the philosopher to bring the results so reached into harmony with the results obtainable from other fields and by complementary methods.

Mr. Balfour does not say very definitely whether he would acquiesce in a science which forswore philosophy altogether—which, for instance, postulated determinism as a working principle, while fully allowing that it might be found to break down when re-examined in the light of the facts of life as a whole. It may be gathered, however, from some casual remarks of his that he would prefer even a purely scientific investigation to start from an overt philosophy, since it cannot but be secretly sustained by some belief about the universe. Now doubtless it is true that, while professing to do without a philosophy, science is in danger of erecting this very cautiousness into a philosophy of indifference, and of so becoming agnostic in the worst sense of the word. Science, however, can reply on its own behalf that a certain amount of scepticism is healthy, becoming dangerous only when it becomes depressing to the natural activities; and that its severest critics cannot accuse

science of being inactive. By comparison, it is philosophy that is inactive. Further, science might ask Mr. Balfour whether his own humanism is not suspiciously like, even if not directly derived from, the prevailing attitude of science towards ultimate questions. Does he not, in effect, postulate theism in so far as it "works" in the department of human values? Be this as it may, Mr. Balfour will find, among the present generation of scientific thinkers, many who will be in sympathy with his general position, whether he in his turn be fully in sympathy with theirs or not.

R. R. MARETT.

England: Archæology.

Hughes.

✓ *Notes on the Fenland.* By Professor T. McKenny Hughes. With A **40**
Description of the Shippea Man. By Professor Alexander Macalister. Cam-
 bridge University Press. 1915. Pp. 35. Price 6d.

The Gravels of East Anglia. By Professor T. McKenny Hughes. Cambridge University Press. Pp. 58. Price 1s.

These two brochures, which have been issued by Professor McKenny Hughes in so convenient a form and at so reasonable a price, are complementary, both of them dealing with the order, the age, and the fauna of the deposits found in the lower or estuarine part of the submerged valley of the Great Ouse. The first is chiefly devoted to the deposits of Fenland which contain peat—here given the name of "turbiferous series." The second is a history of the underlying older deposits of sand and gravel (areniferous series), boulder clay, and older loam deposits—belonging to Pleistocene and Pliocene Ages.

Professor Alexander Macalister contributes a description of the skull and skeleton of a man found at the base of the turbiferous series—on a farm at Shippea Hill, three miles to the east of Littleport. "In the base of the peat, about 4 inches above the buttery clay, a human skeleton was found bunched up and crowded into a small space, less than 2 feet square, as if the body had settled down vertically."

✓ When the discovery was first announced the remains were described by Professor McKenny Hughes as those of a "Man of Neanderthal Type" (*Nature*, 1911, Vol. 89, p. 114), a description which met with some degree of criticism at the time. Professor Macalister regards the skull—which is short and wide, with strongly developed eyebrow ridges—as characteristic of the men who appeared in England for the first time during the Bronze Age. On the evidence produced by the geologist and anatomist we may presume that the "Shippea man" was an East Anglian of the Bronze period. In our pages (*MAN*, 1911, 85) Dr. W. L. H. Duckworth has described nine human skulls from the turbiferous series; three of the nine were brachycephalic

A. KEITH.

Social Psychology.

McDougall.

An Introduction to Social Psychology. By Wm. McDougall, F.R.S. **41**
 Ninth edition. 1915. xvii + 420 pp. Methuen & Co.

Mr. McDougall's luminous exposition of the workings of the instinctive processes of the human mind has earned a well-deserved popularity for his work on Social Psychology, which has now reached its ninth edition. The author has added to the eighth edition a chapter on the sex instinct. He gives a clear account of modern theories of sexual development and of the importance of the sex instinct in social life, and devotes much attention to the doctrines of Professor Freud and his school.

It is disappointing to find that so able and acute a psychologist as Mr. McDougall has allowed the chapters on Social Psychology proper (X to XV, and more especially XI and XIII) to remain unaltered. In Chapter XI, "The Instinct of Pugnacity," Mr. McDougall insists upon the importance of pugnacity as a factor in the development of human society, and illustrates his argument by a sketch of the fighting tendencies of the tribes of Borneo (280-288 *et seq.*). But, in the work which they have written upon *The Pagan Tribes of Borneo*, Dr. Hose and Mr. McDougall elaborate a theory which is in direct conflict with the opinion expressed by Mr. McDougall in the work under review. (*Cf.* Vol. I, pp. 158, 159, 190; Vol. II, pp. 177-8, 180, 182, 183, 185, 187, 193, 231, 243-4.) Mr. McDougall also appears to be pursuing two contradictory lines of thought when he treats of the instinctive basis of religion, for the whole trend of the argument of Chapter XIII seems strangely at variance with the statements of Messrs. Hose and McDougall in Vol. II, pp. 221-222, of *The Pagan Tribes*.
W. J. PERRY.

India: Archæology.

Delhi Museum of Archæology. Loan Exhibition of Antiquities, Coronation Durbar, 1911. Archæological Survey of India.

42

This catalogue contains a selection of the principal exhibits at the Coronation Durbar Exhibition, fully illustrated with 84 plates. The most important part of the collection is a series of pictures belonging to private persons in India, many of them ruling chiefs. This collection is of great value, as the majority of these will not be available again for public exhibition. Most of them are portraits, and naturally they vary greatly in historical and artistic importance. Those belonging to the period of Akbar and Jahangir are in every respect the most notable. Special attention may be drawn to Plate XLI, representing Jahangir as a prince drinking at a well, and to Plate XXXVIII(a) (belonging to the Maharaja of Alwar) in which the same emperor is seen showing himself to the people from the "jharoka" on the walls of the fort at Agra.
M. L. D.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL INSTITUTE.

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(Donor indicated in parentheses.)

The Mythology of all Races. Vol. IX, "Oceanic." By Roland B. Dixon, Ph.D. $9\frac{3}{4} \times 6\frac{1}{2}$. 364 pp. 24 Plates. 3 Illustrations in text, and Map. Marshall Jones Co., Boston. 30s. net. (The Publishers.)

A Sechuana Reader. By D. Jones, M.A., and S. T. Plaatje. $7\frac{1}{2} \times 5$. 45 pp. Hodder & Stoughton. 3s. net. (The Publishers.)

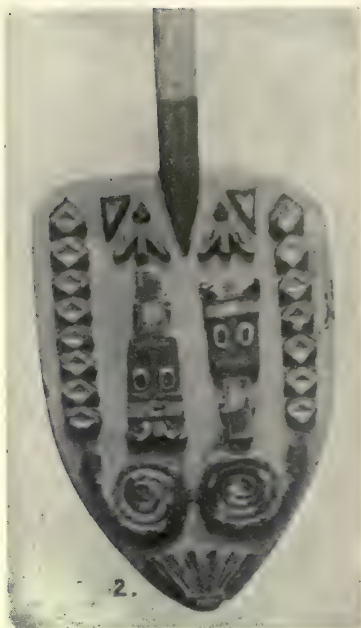
Questionnaire, Egyptian Archæology and Anthropology. By E. S. Thomas. $6\frac{1}{4} \times 4\frac{3}{4}$. 18 pp. (The Author.)

Annual Report of the Archæological Survey of India. Part I, 1914-15. By Sir John Marshall, Kt., C.I.E. $13 \times 10\frac{1}{4}$. 48 pp. 20 Plates. Government Printing, India. 3s. (Director-General of Archæology.)

56'



KALABARI CEREMONIAL PADDLE.
(OBVERSE.)



KALABARI CEREMONIAL PADDLE
(REVERSE.)



KALABARI WOODEN MASK.

CEREMONIAL PADDLE AND WOODEN MASK OF THE KALABARI,
SOUTHERN NIGERIA.

ORIGINAL ARTICLES.

Africa, West.

With Plate D.

Balfour.

Ceremonial Paddle of the Kalabari of Southern Nigeria. By

Henry Balfour, M.A.

44

Among the specimens comprised in the splendid ethnological collection recently brought home by Mr. P. Amaury Talbot from Southern Nigeria, is a large carved and painted ceremonial paddle, which is worthy of special record. I saw this specimen in Mr. Talbot's private museum at his country house, and he generously offered to present it to the Pitt Rivers Museum at Oxford, an offer which I gladly accepted. Not only is the specimen possibly unique, but it is the sole remaining relic of a once famous *Juju*, all the other associated cult-objects having been destroyed during the iconoclastic campaign instigated by the self-elected pseudo-prophet who called himself Elijah II, and whose fanatical movement started in December 1915.*

This paddle-shaped symbolic object belonged to the Kalabari (or Awome) people, in the Degema division of Southern Nigeria (the district lying between the coast and the lower reaches of the Niger proper). The main population of the Degema division is Ibo, but the Kalabari form a considerable element, occupying in the main a position to the south of the Ibo. Mr. Talbot has informed me that the paddle formed part of the cult-paraphernalia of the dominant Ifawkaw (Fouché) *juju* named Amaningiu (the serpent *juju*). The precise function and symbolic significance of the object are not yet determined, but it is hoped that Mr. Talbot may yet be able to shed further light upon this interesting specimen.

The carving is in bold relief, grotesque in design, and somewhat crudely executed. The details are elaborately picked out and emphasised with the help of a variety of colours (black, white, blue, pink, red, and yellow-ochre), and the whole effect is very striking, barbaric, and effective. The general style is characteristic of Kalabari workmanship. The human or humanised head at the top of the loom (Fig. 1), wearing a kind of tall hat and twisted side-locks, is said to represent the Serpent *juju*, Amaningiu. The head is repeated, Janus-like, on the back. In the centre of the loom is another carving (also with its counterpart on the reverse), which is said to typify the Hippopotamus spirit. An identical rendering of this theme is seen in the Kalabari wooden mask from Abonnema, shown in Fig. 3, in which are well seen the long, stout tusks characterising these renderings of the hippopotamus, associated with general anthropomorphic features. This mask, which is carved from the solid wood, and measures 16 inches by 8 inches, was not worn over the face, but surmounted a head-dress which was worn in ceremonial plays, in which it represented the hippopotamus water spirit. The carved details are exactly similar to those of the carving on the paddle. This specimen was also given by Mr. Talbot to the Pitt Rivers Museum.

The blade of the paddle exhibits on the obverse (Fig. 1) relief carvings of a pair of human figures wearing ornamental head-gear; below them are two snakes tightly coiled. Conventional lozenge-shaped figures, and, at the terminal point, a radiate coronoid design, complete the decoration. On the reverse side of the blade (Fig. 2) the treatment is similar, though varying in detail; a pair of human heads facing opposite directions, a pair of coiled snakes (as on the obverse), a pair of flying birds, with a "filling" of lozenge designs, scalene triangles, and a terminal of the same form as on the obverse. The total length of the paddle is just under 5 feet 4 inches; the blade measures 20 inches by 13½ inches.

The wholesale destruction of interesting cult-objects by the fanatical adherents of "Elijah II" has robbed ethnologists of a vast amount of valuable material, which can never be replaced; and in view of the holocaust which characterised the raids

* See P. A. Talbot, *Journal of the African Society*, xv, p. 305.

of the "prophet," it is the more gratifying that Mr. Talbot by his promptness and energy was able to rescue as much as he has done. By his timely intervention and generosity the British Museum and the Oxford Museum have acquired a number of valuable accessions.

HENRY BALFOUR.

Punjab.

Muhammadan Betrothal Observances in the Punjab. By H. A. Rose.

Rose.

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SECTION 1.—TERMINOLOGY.

Among Muhammadans "betrothal" is known as *maṅgewā*, *maṅni*, *maṅaṇ* (and other forms of that word,* which literally means "asking" or "begging"). It is also called *sagāi*, especially in the south-east, and *kurmāi*.† Another term is *ropnā*, which literally means the present or token consisting of seven dried dates and various other things sent by a (Hindu) girl's father to his prospective son-in-law at or before the betrothal. It corresponds to the *shagun*‡ among the higher castes, e.g. in Hoshiārpur. The Arabic word *nisbat* is also used, chiefly in the towns. Another common term is *nātta* or *nātā*, which has a somewhat derogatory meaning, so that *nātā denā* means to give a girl in marriage, an admission of inferiority in status. The bridegroom is styled *mangedār* or *mangetar*,§ a term also applied to a betrothed girl, while *bendhā* is used in the south-east. In the north-east he is called *dūlo*, or *dulhā*, or *naushāh*,|| *nausho*, *nausā*, or *naudho* being variant forms of the latter word, and in Gujranwālā *lārā* is also used. In the Talagang tahsīl of Jhelum he is called *nudha* and his bride is *kuri*, literally a girl or a virgin. In the south-west *ghot* is in common use.

The bride is correspondingly *bendhāni*, *dulhān*, or *kwār* in the south-west, and after she is married *nodh* or *bahū*.¶ The latter term means literally son's wife.

In the Pashto of Peshāwar bethothal is called *koyidan*. The bridegroom is called *changhūl* and the bride *chunghalā*. During the days of marriage the *changhūl* and *chunghalā* are respectively called *khāwand* and *nāwī*.

The boy's father is particularly, and the boy's kinsmen are generally, called *putreta*. Similarly the girl's father or party is *dheta*.

SECTION 2.—PRELIMINARIES IN BETROTHALS.

In Arabia, it is said, marriage is usually adult, and it is not regarded as indecent that the bridegroom should see his future wife, but the seclusion of women in India renders this impossible, at least among the better classes. In consequence a *māshshāta* or go-between is often employed to spy on the girl and report on her looks, etc., to the boy's people. These go-betweens assume various disguises, such as cloth-sellers, in order to obtain access to the girl's house, while, on the other hand, a girl is not infrequently substituted for the one seen and reported on by the go-between. Unpleasantness not unnaturally frequently results from such a deception. In theory Muhammadan law attaches great importance to mutual consent in marriage, but in India the practice is very often opposed to allowing even grown-up girls to express any opinion on a proposed betrothal. In fact, among the Muhammadans of Delhi there is a custom of pre-natal betrothal which is called *thikri kī māṅg*,** because, if a girl be born according to anticipation, the boy's mother drops a rupee into the girl baby's bath or mixes sugar candy in the *ghutti* given to her, as an earnest

* E.g. *maṅaṇ* in the Rājanpur tahsīl of Derā Ghāzi Khān.

† Fr. *kuram*, "a relation by marriage."

‡ Or *shagan*, lit. "an omen."

§ *Mangedā*, fem. *mangerdi* is also used.

|| This word appears to mean "new king."

¶ See Maya Singh's *Punjabi Dictionary*, s.v.

** Fr. *thikrā*, an earthen vessel. *Māṅg*, asking.

of the betrothal contract this ratified. In Rohtak a boy's mother or any near kinswoman may drop a rupee into the vessel used by a midwife, and by so doing apparently bespeaks the new-born girl for her son. The betrothal is there and then announced and congratulations are exchanged.

Contrary to the usual practice amongst Hindus, the proposal among Muhammadans comes almost invariably from the boy's side. The term *bâtânâ-bât-jânâ*, to propose, is used when negotiations are opened by the boy's people. When both sides are satisfied as to the suitability of the match a day is fixed "for sweetening the mouth" (*mūṇh mīṭhâ karne kâ din*), and on that day a number of women, with a few men of the boy's family, go to the girl's house to perform the betrothal rites.* In the Sangrūr tahsil of Jind the request by the boy's father is called *dhuk* and he visits the girl's father in the evening. The *duâ-i-khair* is then observed, the senior member of the boy's party commencing the prayer.

In Dera Ghāzī Khān the negotiations which precede a betrothal are called *sawāl* or "request," and may take place a month or more before the betrothal is solemnised.

The negotiations are, however, not infrequently opened by the girl's people among the rural classes who are converts from Hinduism. Thus among the Meos of Gurgaon the girl's party first visits the boy's father, and reaches his house on the evening of an auspicious day in the lunar month. If they find the boy to their liking they are feasted, after giving a rupee each to the boy, his father, brother, father's sister, and his *mīrāsī* and barber. The party is also feasted on the second and third days, after which it sets out for its home, giving the boy's parents Rs. 11 or 22 as a farewell gift. Of this sum a rupee is left in the vessel in which it was presented; the barber and *mīrāsī* take one rupee and the balance is given to the poor. The girl's father in turn gives a rupee to the boy's father. This is called *milāp*. Among other Muhammadans the observances vary. A ring or two is often sent to the boy, with other presents, and the rings are put on by the boy amongst his assembled kinsmen.† A ring is often presented in sugar, and the kinsmen feasted with more or less ceremony.

When such a negotiation is initiated by the girl's father certain special observances may occur. Thus in Siālkot a *mīrāsī*, barber, or even a Brahman, is sent to the *putretā* or boy's father, and when he reaches his house a little oil is dropped on the threshold before he enters it. This observance is called *tel dālānā*. The *putretā's* *lāgīs* also assemble, and the *dhetā's* *lāgī* is given some sugar in a plate, from which he takes a little in his mouth. This observance is called *munkh juthlawna* or *juthālānā* or *juthalāna* = to defile: P.D., p. 522. Then the *lāgī* is given *khichri*. He eats some of it and drops a rupee and some copper coins in the plate. These are distributed among the *putretā's* *lāgīs*. Next day the boy's kinsmen feast the *lāgī* on rice and sugar or mutton and bread. At the *zuhr* prayer carpets are spread in the boy's house and the whole brotherhood assemble. The boy is seated in front of the *lāgī*, who gives him from Re. 1 to Rs. 25 as well as a date or sugar candy to eat. Then he exchanges congratulations with them and observes the *niyat khair*. After this all present congratulate the boy's father. The *dhetā's* *lāgī* presents a sum varying from Re. 1 to Rs. 11 for distribution among the boy's *kamīns*. The boy's people also distribute *tapāsās* of sugar among the people on this occasion. Some well-to-do Jāt and Rājput families also send a camel, a horse, and ornaments such as bangles or *butkiān*‡ for the boy's mother. This is called *ṭikkā bhejnā*. On

* This paragraph applies to Delhi city.

† The barber is given rice, *ghi*, and sugar, but nothing containing salt should be offered him on this occasion.

‡ *Budki*, a gold coin worth Rs. 5: P.D., p. 168.

this occasion drums, &c., are beaten in the boy's father's house. The persons present on the occasion give a rupee each to the boy's father to be given to the *lāgī*. On the *lāgī*'s departure the boy's father gives them as *wadāigī* from Rs. 4 to Rs. 8, which is divided into four shares, three being given to the *lāgis* named above and the fourth to the *lāgī* of the maternal relatives. No mention is made on this occasion regarding the date of the wedding.

A very few wealthy families in Gujrānwālā also observe this custom of sending a *ṭikkā*, but in a slightly different way. It consists in sending a barber, a *mīrāsī*, a Brahman, and a tailor, with a horse, a camel, clothes for the boy and his parents, a gold finger-ring for the boy, Rs. 21 in cash, five lumps of candy, and some dried dates. On the arrival of the *lāgis* named, the boy's father invites his kinsfolk to his house and displays the gifts mentioned. Congratulations are then exchanged and *tapāshās* distributed among those present. Rs. 2 to 5 are given to each of the bride's *lāgis*, and they are then sent back. Various intermediaries are employed in the preliminary negotiation. Thus in the Bhakkar tahsīl of Mīānwālī, on the Indus, a Sayyid, *maulavi*, *faqīr*, or any respectable elder, is sent to the girl's father by the boy's to make a request (*dhuknā*) for her hand. If it is meant to accept it an ambiguous answer is given until the proposal has been repeated four or five times. Meanwhile the boy's kinswomen begin visiting the girl's family with presents, and finally the offer is accepted provided the parties be related or the boy's father promises compensation or a girl in exchange. In the Leia tahsīl of this district the leading families, almost all Sayyids and dominant Baloch, the first step to take when a boy reaches a marrying age is to send a *dhuk* or embassy of picked members of the family to the girl's father. His refusal will be definite, not to say abrupt, but his acceptance ostensibly reluctant and well-considered. The families now begin to associate, but the girl veils herself from all the males of her intended husband's family.

But in Hazāra generally no intermediary is employed save the barber, and he is not called when the parties belong to the same brotherhood, for then the womenfolk arrange matters. In Peshawar an elderly kinswoman of the boy acts as *dalāla*, or go-between, and it is only when she has succeeded in securing a bride for him that a *jirga* of Sayyids and *ulmās* is sent to the girl's parents. If they are wealthy they put off the *jirga* twice or thrice before finally consenting.

Even after these preliminary negotiations the final betrothal does not always take place at once. Thus in Bhakkar and Leia a few days after the negotiations have closed the boy's people go to the girl's house and formally present her father with a few gold or silver ornaments for her use, and after the *duā-i-khair* has been repeated distribute sweetstuff. This observance is called *nishānī*, or "token." In Bhakkar the boy's father is said to place a ring on her finger and a *bhochhan* or sheet on her head, and this is called *nishānī*. The betrothal follows a month or two later. But among the Utmānzais in Hazāra the *nishānī* only precedes the betrothal by a couple of days, and is observed in rather a curious way: the boy's party takes presents to the girl's village. After nightfall they are invited to her house, and the *mīrāsī* brings a plate, into which the boy's father puts the ornaments. Of these the girl's father takes two or three by way of *nishānī*, and then the betrothal is announced, the *duā-i-khair* recited, and congratulations exchanged. The *mīrāsī*'s fee for this service varies from Rs. 4 to 8, twice that of the barber, so the part he plays must be regarded as important. The boy's teacher gets from Rs. 1 to 5. Among the Jadūns in this district the *nishānī* appears to be the betrothal itself, for when a match has been arranged the boy's father sends food—called *jirga kī rotī*—to the girl's and then pays a visit (*jirga*), which must be made on a Monday or a Friday, and by night, to her house. The *jirga* or visitors are then

fed, and a barber presents sugar in a plate to one of its members. He drops Rs. 30, 50, or whatever the girl's father demands, into it, and the barber carries it into the house. The girl's father accepts part of the money and returns the rest. The *duā-i-khair* is then recited, and a rupee* given to the mosque. A barber then gives the boy's kinsmen in a cup (*katora*), into which they drop a rupee. In another cup *mehndi* is brought, and this is applied to each man by way of *nishānī*. Another rupee is dropped into this cup also. Within a week of the *jirga*'s departure, some of the boy's kinsmen take a sweetmeat called *pakwān* to the girl's house, where they spend the night. The return visit is called *milnī*. At the next *Īd* the boy's parents send the girl clothes and uncooked food, with an ornament if well-to-do, and similar presents are sent on every *Īd* and *Shab Barāt* until the wedding.

In Peshāwar also the *nishānī* is the *nātā* or betrothal. When the last *jirga* has obtained a definite promise of the girl, a body of the boy's kinsmen go to the girl's house, and take one to seven ornaments with them as *nishānī*. When they arrive they are seated on a carpet, and the barber brings a *patnos* into which each puts some money. The ornaments, too, are put in, and then the *patnos* is sent inside to the girl's womenfolk. The amount of money agreed upon and the *nishānī* are kept, and the *patnos* with the balance sent out again to the boy's kinsmen. The betrothal is completed by the father paying certain fees to the barber, the *imām* of the mosque, and the *mutrib*. On the third day after this the girl's parents send the boy a ring and a suit of clothes—a gift called *jorā*—and at each fair and festival his parents send her presents till the wedding.

In the Utmānnāma Tappa of Peshāwar the *nishānī* observance appears in all essentials under the name of *thāl*—the plate in which the ornaments for the girl are placed. The *thāl* ceremony concludes with the return, it is said, of all the ornaments and cash offered. However this may be, at its close each person present drinks some *sharbat* and puts some *mehndi* on his hands—an observance called *ghūnt*, which is held to make the betrothal binding. The third day after the betrothal the girl's kinswomen go to the boy's house for two or three days, and when they depart his parents give his future mother-in-law and sister-in-law a rupee each “by way of *parṇa*.” This observance is called *channa arta*. Again, two or three days later the bridegroom, with two or three friends and females, goes by night to his father-in-law's house taking with him sweetmeats and cash Rs. 2 to 10. The party are feasted and then the bridegroom puts the money into the plate and sends it with the sweetmeats to his mother-in-law as *salāmāna*. Shortly afterwards the bride's parents come, flinging jets at him, and sprinkle scented water over him. This is called *ubā achwal*. At each fair and festival after these ceremonies the bridegroom sends gold or silver ornaments for the bride.

In the Chakwāl tahsil of Jhelum a very similar custom exists. To ratify the understanding already arrived at, the boy's father goes one day to the girl's and presents him with sweetstuff and Rs. 21 in cash in the presence of her brotherhood. Her father accepts from Re. 1 to Rs. 5, rarely taking the whole, and coloured water is sprinkled over the whole of the boy's party. The *duā-i-khair* is recited at night, and they return next day. This is called *nishānī rakhnā*. The boy does not accompany the party on this occasion. On the first *Īd* after it, the boy's father sends presents for the girl, and if he is well-to-do he sends clothes to her mother and sister as well—when the gift would be called *dhāi tewar denā*, “to gift 3 (literally 2½) sets of clothes.” The fathers may also exchange gifts of clothes, but if the bride's parents only receive garments for her they need only give sweetmeats in return. If this gift is brought by a barber the girl's father gives him a rupee, a turban, and a *kurta*—an observance called *kapre denā*. At the next *Īd*

* Called *duā kā rupiā*.

clothes, &c., are only sent to the girl. In Talagang tahsīl the *nishānī* is merely a present of Rs. 5 in cash and as many *paos* of sugar made, it seems, at betrothal. So, too, in Haripur tahsīl, in Hazāra, it is an ornament given to the girl at the *mangeva*. Finally, in Hoshiārpur, at least among the Paṭhāns, we find the *nishānī* following the solemn betrothal, at which a *maulavi* invokes the *niyat khair* twice and the girl's father gives dried dates and sugar to the boy's party by way of *shagun*. The contract having thus become irrevocable, some date of the lunar month is fixed for the *nishānī*, which merely consists in the interchange of presents, feeing of *lāgis*, and the payment by the girl's father of sufficient money to buy the boy a ring.*

H. A. ROSE.

African Relationships.

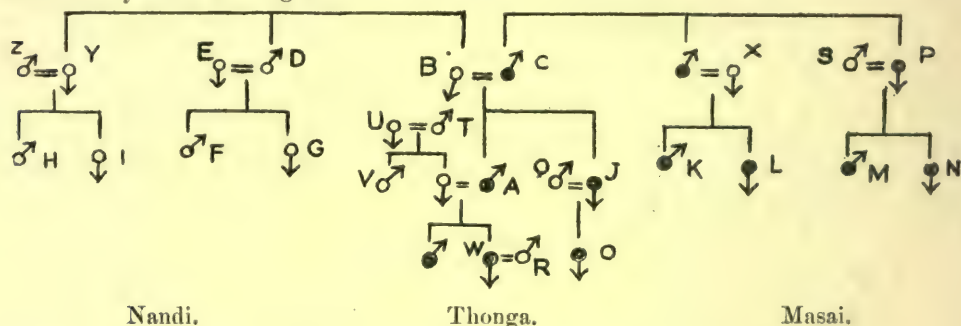
Seligman.

The Relationship Systems of the Nandi Masai and Thonga. By Brenda Z. Seligman.

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The following notes on the relationship systems of the Thonga, Nandi, and Masai are based upon the published works of M. H. Junod† and Mr. H. C. Hollis.‡ The comparison shows some striking points of resemblance, which can be explained by the prevalence among all three peoples of a particular type of marriage, apparently dependent on the payment of the bride price. Among the Thonga this marriage, *i.e.*, with the wife's brother's daughter, takes place at the present day.§ We have no record of it among the Nandi or Masai, yet so close is the correspondence in the use of the relationship-terms involved, that I can only conclude that if this marriage does not take place at the present day it must once have been the custom.

Those persons to whom A can trace relationship through the father are indicated by solid sex signs.

A calls D, E, F, *imamet*A calls D and F *malume* or *kokwana*.A calls D and F *ol-apu*D calls A *lakwet* (son)D calls A *ntukulu* (grandson)A calls B and G *kamet* (mother).A calls B and G *mamana* (mother).A calls H, I, J, K, L, *tupchet*A calls H, I, J, K, L, *mah-wabu*.A calls M *weirit-ap-chepto*A calls N, O, *lakwet-ap-taptel*.

* In Leia a few days after the betrothal a date is fixed and on it the son's party, with some relations and friends, go to the girl's house, and before the assembly present her father with a few silver or gold ornaments for her personal use. After saying the *dua khair* and distributing sweetmeat they return home. This is called *nishānī*, lit. "a mark of securing union."

† *The Life of a South African Tribe*. Neuchatel, 1912.

‡ *The Nandi*: also, "Note on the Masai System of Relationship and other matters connected therewith." *Journ. Roy. Anthr. Inst.*, Vol. xl, p. 473.

§ Junod, *Op. cit.*, pp. 232-233.

Nandi.	Thonga.	Masai.
A calls P <i>senget</i>	A calls P <i>rarana</i>	
A calls Q, R, S, <i>sandit</i>	A calls Q, S, <i>mukoñwana</i>	A calls Q, R, S, <i>ol-aputani</i>
A calls T, V, <i>kâp-yukoiit</i>	A calls E <i>nsati</i> (wife)	
C calls X <i>pamurto</i>	E calls A <i>npata</i> (husband)	C calls X <i>e-sindani e-anyit</i>
X calls C <i>pamurto</i>	C calls elder brothers and sisters of wife <i>mukoñwana</i> .	X calls C <i>o-sindani le-anyit</i>
C calls Y <i>pamurto</i>	C calls E and her elder brothers and sisters <i>mukoñwana</i> .	C calls Y <i>e-sindani e-anyit</i>
C calls Z <i>lemenjit</i>	A calls T and U <i>mukoñwana</i>	
	C calls F <i>mukoñwana</i> or <i>namu</i>	
	G calls C <i>nkata</i> (husband)	

NANDI.—The relationship system of the Nandi has certain classificatory features, though the father's sister is not classed with the mother, but has an individual term, and the mother's brother's daughter is called "mother." Mr. Hollis has not made any remark on this point, but by comparing the Nandi system with that of the Thonga, who also call the mother's brother's daughter "mother," all the other incongruities in the relationship system of the Nandi become perfectly natural consequences of the marriage to which I refer. Age classes with sexual communism between certain groups are far more clearly marked among the Nandi and Masai than among the Thonga, so it is the more surprising to find this direct exception to the rule that a man marries into the women's age class corresponding to his own. Yet, on this hypothesis, seven terms among the Nandi, and six among the Masai, which otherwise appear incongruous, are explained. Thus, if C has the right to marry G, his wife's brother's daughter, then—

- (1) A (son of C) calls G, his mother's brother's daughter, *kamet*, "mother."
- (2) A calls his mother's brother D, *imamet*, but in consequence of his father's marriage to G, F becomes his maternal uncle, hence—

A calls his mother's brother's son, F, *imamet*, the same term that he applies to F's father.

- (3) A calls his father's sister's daughter, N, and his own sister's daughter, O, by the same term, *lakwet-ap-taptel*, because S, the husband of his father's sister, has the right to marry his wife's brother's daughter, J, who is A's own sister. Consequently, the daughter of P and the daughter of J bear equal relationship to A.
- (4) C calls his wife's father and his wife's brother by the same term, *kâp-yukoiit*; the brother of his first wife is the father of his second wife.
- (5) A calls his father's sister's husband, S, by the same term as he calls his own sister's husband, Q, because S has a right to marry his wife's brother's daughter, J, who is A's sister.
- (6) Thus it is not surprising to find an individual term for father's sister, though the father's brother is called "father" and the mother's sister "mother."
- (7) A calls his own daughter's husband, R, by the same term as his sister's husband, Q, because Q has a right to marry his wife's brother's daughter, W.
- (8) The other terms are such as would be expected in a classificatory system.

The system is, however, unusually rich in terms for relations by marriage; these may be dependent upon the payment of the bride price, and I suggest that those three relationships which are called by the same term, *pamurto* (wife's sister,

husband's brother, and brother's wife), are used between people whose relationships are untampered by this consideration.

Monsieur Junod has shown how the right to marry a wife's brother's daughter has arisen out of the custom of paying *lobola* (bride price) among the Thonga. According to M. Junod's account a man had the right to his wife's brother's wife, i.e., that one whom his wife's brother bought with the *lobola* that he received for his sister. This right would only be exercised in case of barrenness, death, or other breaking of the first marriage. This woman, the wife's brother's wife, is called the great *mukoñwana*, the term *mukoñwana* being applied to mother-in-law, and she is respected and avoided as a mother-in-law, and this respect and avoidance is even extended to her elder brothers and sisters:—

"One of the explanations (I will not say it is the only possible one), is this: This woman having been obtained with my oxen, there is a relation of dependency between her family and mine. Mboza says: 'Should my home be disturbed by quarrels, should my wife, Nsabula, leave me and run away to her parents, or should she die without children, I shall go and claim my oxen. . . . But the oxen have been employed to buy a wife for my brother-in-law, Maphunga for Mahangale. If Gogwe has no other means at his disposal he must separate the pair, Maphunga-Mahangale, cancel their marriage, send Maphunga home, and claim the money from her parents. Or I might myself take Maphunga as my wife, and in either of these cases the marriage, Maphunga-Mahangale will be annulled.'"^{*}

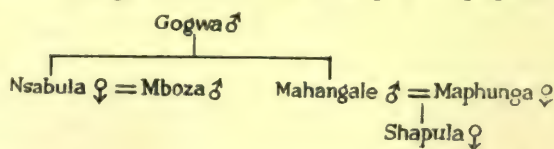
It is very curious that here we have a woman treated as mother-in-law by a man who has a right to marry her. But before he could marry her he must "kill" the relationship. "Then Mboza fetches a goat and a most curious ceremony takes place, . . . the rite of killing *bukoñwana* or *shikoñwana*, the aim being to "kill a certain kind of relationship which must be replaced by another."[†]

Monsieur Junod shows that, as a matter of fact, the breaking of her first marriage so that she may marry her husband's sister's husband is so inconvenient that she usually gives her daughter to him instead, and thus she becomes his actual mother-in-law.

On comparing the terms used by the Thonga and Nandi we see that they correspond in a striking manner. Both systems have an individual term for father's sister; in both the mother's brother's son is called by the same term as the mother's brother, while the mother's brother's daughter is called "mother," and in both systems the father's sister's husband is called by the same term as the sister's husband.

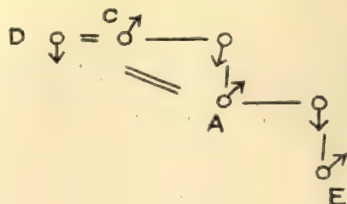
Among the Thonga the logical consequences of this marriage are carried further;[‡]

^{*} *Op. cit.*, p. 232. The diagram shows the relationship of the people referred to:



[†] *Op. cit.*, p. 233.

[‡] The Thonga relationship system is further complicated by the right of a man to inherit his mother's brother's widow, whom he calls "wife" during her husband's lifetime. She also calls him "husband"; he is on the most friendly terms with her but he is not allowed to cohabit with her. It might be due to this inheritance or former right of access to the mother's brother's wife that the word for sister's son is the same as grandson among the Thonga. If A marry D, the wife of his mother's brother, then E, his sister's son, might perhaps call him grandfather, as he calls C.



a man calls his wife's brother's son by the same term as his brother-in-law (C calls F *mukoñwana*) and a girl calls her father's sister's husband "husband" (G calls C *nkata*). Mr. Hollis has not given us the terms for these relationships among the Nandi (presumably the term for father's sister's husband, *sendit* among the Nandi, refers only to that relative when addressed by a man, when it logically corresponds to sister's husband and daughter's husband, see diagram S, Q, R), so we do not know if the corresponding terms are used among them.

THE MASAI.—In the Masai system many of the same features are present that are found in the Nandi and Thonga systems, so that the same marriage may be hypothesised among them, though probably the practice may have been discontinued for a longer period, as the consequences it would produce upon the relationship system are not so complete as in the two other systems. Among the Nandi and Thonga the key to the relationship puzzle is found in the term "mother" for mother's brother's daughter; this is absent in the Masai system, where a man calls his mother's brother's daughter by the same term that he applies to his father's sister's daughter. The individual term for father's sister is also absent. Yet six other terms can be explained by the supposition of the prevalence of this marriage. It should be noted that reciprocal terms are more common in the Masai system than in the Nandi.

The following apparent incongruities are the logical sequence of the marriage with the wife's brother's daughter.

The term for mother's brother, *ol-apu*, is used for mother's brother's son; A calls D and F *ol-apu*. That the same term is used for father's sister's son can be accounted for, as that is the reciprocal term to mother's brother's son, F and M call A *ol-apu*.

The father's sister's husband, daughter's husband, and sister's husband are all called by the same term (as among the Nandi); A calls Q, R, and S *ol-apatani*. Wife's father and wife's brother are the reciprocal terms to daughter's husband and sister's husband, and are called by the same term; R and Q call A *ol-apatani*. That the husband's father is called by the same term is curious, and is probably due to a false analogy with wife's father; this does not occur among the Nandi and Thonga, and the term has probably only been extended to the husband's father since the marriage with the wife's brother's daughter has fallen into disuse.

Mother's sister's husband, mother's sister's son, and wife's sister's husband are all called by one term, *ol-le-sōtwa*. The only explanation I can see for this is that a man inherited (or married) his father's wife (his own stepmother), as is customary among the Shilluk. There is no difference in Masai between the terms used for blood relations and step relations. The logical consequence of this marriage, coupled with the tendency that all relationship terms should be reciprocal, is, that these three relationships and that of wife's sister's stepson fall under one heading. Thus, if A marries B,* the wife of his father, C, he calls his wife's sister's husband, Z, by the same term as his (step) mother's sister's husband, because he is the same person, and as terms tend to be reciprocal in Masai, Z calls his wife's sister's husband, C, by the same term as his wife's sister's stepson, A. But H (the son of Z) calls his mother's sister's husband and his mother's sister's stepson, A, by the same term because they are the same person. (Wife's sister's son is not given in Mr. Hollis's list, but in his table it is shown as *ol-le-sōtwa*.) It must be noted that the term *ol-le-sōtwa* must have originally meant mother's sister's son (itself a reciprocal term), as the feminine form of this term is found in *en-e-sōtwa*, which means mother's sister's daughter.

* For convenience the same diagram has been used, but in this case A must be assumed to be the son of C by another wife.

Mr. Hollis points out that those who call each other *ō-sindani le-anyit* and *e-sindani e-anyit* respectively avoid each other as a man does his mother-in-law, and that a man cannot marry his blood brother's widow, but only his half-brother's or paternal cousin's widow; "and that no man may marry a nearer relation than a third cousin, and then only if the terms of address used are *ol-le'-sōtwa* and *en-e-'sōtwa*."

The prevalence of a custom among two peoples so widely separated geographically and linguistically as the Nandi and Thonga is of great interest, especially as there are traces of similar features among the Nilotic Negroes (of which I hope to treat at another time). The custom can be traced to the payment of the bride price, but behind this other influences may have been active, for it must not be forgotten that among all the mixed Hamitic Negro peoples of Africa, where paternal descent is now the rule, strong traces of previous maternal descent are to be found.

BRENDA Z. SELIGMAN.

REVIEWS.

India : Antiquities.

Foote : Rea.

Catalogue Raisonné of the Foote Collection of Indian Prehistoric and Proto-historic Antiquities. (Madras Government Museum.) By R. B. Foote. Madras. 1914. **47**

The Foote Collection of Indian Prehistoric and Protohistoric Antiquities : Notes on their Ages and Distribution. By R. B. Foote. Madras. 1916.

Catalogue of the Prehistoric Antiquities from Adichanallur and Perumbāir. By A. Rea. (Madras Government Museum.) Madras. 1915.

These two important catalogues have recently been issued by the Madras Government. The first-mentioned, which is the largest and most complete, relates to the collections made by the late Mr. R. Bruce Foote, who was for a long time superintendent of the Geological Survey of India, and was compiled by him before his death in 1912. The collection had been purchased by the Madras Government in 1904. It is very comprehensive, including objects from every part of the Madras Presidency and a few from other parts of India.

The second catalogue relates to an interesting collection of finds in the Tinevelly District, the most southern part of the Madras Presidency, which were excavated between 1899 and 1904, by Mr. Rea, of the Archæological Survey of India. This was not the first excavation of the site, and the proceedings in 1876 are interesting as illustrating the carelessness and neglect frequently shown by the Indian Administrations of that period, and also the predatory methods of certain German savants. Dr. Jagor, of Berlin, accompanied by the Collector of the District, visited the spot, and excavations were made which resulted in the discovery of many sepulchral urns, implements, weapons, bones, and skulls. "All these articles," the report says, "were taken away by Dr. Jagor for the Berlin Museum, and none of them reached the Madras Museum." Comment is needless.

Fortunately the excavations had not gone very far, and those now described show that this "is the most extensive and important prehistoric burial-place as yet known in Southern India." The objects found are of gold, bronze, iron, and pottery. The gold objects are very thin oval plates, probably diadems. They are illustrated in Pl. I. The bronze objects are mostly cups, bowls, and ornaments (Pl. II). The iron objects are mainly weapons and tools (Pls. III, IV, V). The large collection of pottery is illustrated in the remaining plates (VI to XII).

M. LONGWORTH DAMES.

A second volume on the Foote Collection, containing Mr. Foote's notes on the ages and distribution of the antiquities he collected, has been issued during the

present year. It will be welcomed by all students of the subject, as it throws much needed light on the objects described in the catalogue. Mr. Foote's Introduction (A) and General Notes (B) will also be read with much interest. Among the latter, section 7, "Distribution of the Prehistoric Peoples," contains a discussion on the settlement of the Dravidians in Southern India, and the route followed by them in their advance from Balochistan.

Mr. Foote's conclusions are not altogether in agreement with those come to by Sir T. Holdich in the "Gates of India." He finds that no prehistoric monuments are found near the coast between the Indus and the Gulf of Cambay to support the theory that they followed the coast route, and thinks it more probable that they skirted the Rann of Kachh depression to the north, and turned southwards along the eastern side of the Gulf of Cambay. The notes generally are of great value.

M. L. D.

Egypt: Archæology.

Blackman.

Rock Tombs of Meir. Part III. By A. M. Blackman.

This third volume of the tombs of the Middle Kingdom at Meir keeps up the interest of its predecessors, but at the same time it shows, even more clearly than they do, the faults in the author's presentation of the subject. There are two grave faults. The first is the footnotes. The habit of footnotes is one which steadily increases unless severely restrained; they should be restricted, if used at all, to little more than references. To read a page of Mr. Blackman's letterpress is a fatiguing performance; it is impossible to read straight on, as one dare not miss a note lest one should miss at the same time a piece of information which belongs to the subject in hand; while references, which may legitimately be given in footnotes, are scattered in the notes and the text indiscriminately, *e.g.*, p. 20, among others.

The second fault is the arrangement of the plates. The plan and sections on Plate I could, with a little care, have been made to fit into a one-fold, instead of a two-fold, plate; the position of the plan itself could have been reversed without detriment, so as to bring the north to the top of plate, as is the conventional method of plans (*i.e.*, maps) of places or countries; and to have so turned the figures and lettering and their explanation that they might be read with the book the right way up, would have greatly conduced to clearness and ease of reference. Again, the scale is perpetually changed; Plates V, XII, XIII, are 1 to 5; Plates VI, VII, VIII, XVIII, are 1 to 4; Plates II, XXVII, are 1 to 6; Plate XIX is 1 to 7. This utter disregard of the student's, and even of the ordinary reader's convenience, is manifest throughout the volume.

Such books as this are published for the use of students, and therefore no means which conduce to ease and convenience of reference should be neglected. There are certain definite rules which should be followed in the arrangement of plates for publication. Plates should be upright if possible, and the lettering of plans, &c., should be arranged to be read with the book in that position. All scenes from one tomb should be published on the same scale. Folding plates should be avoided as much as possible, but if unavoidable, one fold is preferable to two; compare, in this connection, Plate III, and the waste space on each side of the drawing.

I have criticised the manner of presentation of the material, but with the material itself there is no fault to find. The tombs of Meir are full of interest to Egyptologist and anthropologist alike; and it is by careful drawings such as these, and by the equally careful study bestowed on them by writers such as Mr. Blackman, that so much is known of ancient Egypt. The group of tools and magical implements are of great importance, and one could have wished that Mr. Blackman had

written a short account of them in an appendix instead of cramming the information into the footnotes. It would be interesting to know, for example, if the finger-of-Horus amulet had any connection with the two-finger amulet of the Saite period.

Mr. Blackman has translated all the short sentences which occur in the scenes, with the result that we get a good idea of the colloquial expressions of the time. The cook's remark, in praise of the duck he is roasting, is delightful, "I have been over the blaze since the world began, but I never saw such a duck as this."

The pattern round the approach to the statue recess appears to be unique in Egypt, and is therefore important. It is remarkable that certain patterns occur only in the Middle Kingdom; the ceiling decorations at Beni Hasan as well as this peculiar design, suggest strong foreign influence at this period.

Taken altogether, this volume bears comparison with its predecessors, and we shall look forward with interest to the fourth part. M. A. MURRAY.

Folklore.

Kunz.

The Magic of Jewels and Charms. By G. F. Kunz, M.A., Ph.D., D.Sc. 9 x 6 $\frac{3}{4}$; pp. xv + 422. With 86 Illustrations, in colour, double tone, and line. Philadelphia and London: J. B. Lippincott Co. 1915. 21s. net.

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The writer of this book is a distinguished American mineralogist, for whom stones have long held an interest and a fascination quite independent of their chemical constitutions and the history of their occurrences in nature. The human aspects in their story, from the time when man, in early process of evolution, first acquired the instinct to pick up and the intelligence to preserve the pretty pebbles or the glittering fragments of rock which happened to catch his hunter's eye, have especially appealed to Dr. Kunz, while his mineralogical studies have given him exceptional facilities in gathering information dealing with the decorative, the assumed magical, the real or conjectural therapeutic, and the other not purely materialistic applications of stones. Having been led, almost inevitably, through a study of the supposed occult virtues of gems and other stones, to an examination of the similar virtues of other objects, natural or of artificial forms, he has recorded the results of his reading in the present book and its companion volume, *The Curious Lore of Precious Stones*, published a couple of years before it.

The book is frankly a compilation, the author arranging his mass of material according to classes of objects, and not with reference to any theories the soundness of which he wishes to prove. Nor are any broad deductions attempted, although occasionally the author puts forward suggestions of his own concerning such things as the origins of certain beliefs, or insufficiently identified substances referred to by some of the older writers, and sometimes (*e.g.*, Preface, and p. 268) makes a plea for a more widespread recognition of the value of symbolism, as expressed in ornamental objects or in practices, and now so often eclipsed by the materialistic tendencies of modern life, as a means for making existence sweeter and happier. It is just because it is a compilation that the book should prove of service to students of ethnology, and especially of folklore, for it is a storehouse of extracts, often suggestive, from works which such students are, in the ordinary course of events, not likely to examine. It is sufficiently lightly written to make agreeable reading for layman and student of folklore alike, and, while the latter may not find the whole of the collections of direct value for his studies, he may open the volume anywhere with almost a certainty of finding something of at least human interest. The book contains a great deal, and often curious, information concerning amulets and talismans, and should consequently be especially useful to students of the psychology underlying curative and protective magic. It is pleasant to be able to

record that the writer of a book of this character has given chapter and verse for practically all of his statements, and that he has for the most part been guided wisely in the selection of his authorities.

It is not possible, within the limits of a brief review, to do more than call attention to some of the collections of extracts out of those of most interest to the folklorist. In Chapter I, "Magic Stones and Electric Gems," we find material dealing with stones of service for rain-bringing; the *shamir* stone used by King Solomon for dressing the stones of his temple; the stones buried in the flesh of persons who would be invulnerable; the preservation of pebbles and other stones by primitive peoples; the legends attached to certain rocks or boulders; and the preservative or therapeutic employments of amber and of loadstone. Chapter II deals with the beliefs connected with meteorites, or supposed meteorites, and other objects thought to have fallen from the skies, including therewith the prehistoric stone implements found in the ground, and ascribed, in many parts of the world, to celestial agencies. In Chapter III, "Stones of Healing," we have much matter taken from the mediæval and Renaissance treatises on the supposed therapeutic virtues of precious and semi-precious stones, sometimes carried, sometimes, generally in the form of a powder, taken internally. "On the Virtues of Fabulous Stones, Concretions, and Fossils" (Chapter IV), is in part concerned with stones swallowed by animals and thus acquiring new virtues; certain bones and concretions (exclusive of bezoars) found, or supposed to be found, within the bodies of animals; the well-known hollow concretions called "eagle-stones" (*aetites*), whose employment as amulets for expectant mothers was known to Pliny, and survives to-day in various parts of the Continent; fossil objects of animal origin, such as the shark's teeth, known as *glossopetræ*, belemnites, sea-urchins, crinoid stems, shells, and corals; and the various objects passing as toad-stones. Chapter V, "Snake Stones and Bezoars," is practically a continuation of the previous chapter, the great amount of material brought together with reference to those classes of objects (the former including both the stones supposed to be found by or in snakes and those believed to remove the poison from snake-bites) making advisable a chapter devoted exclusively to them; in this, the author puts forward the suggestion that the "snake-stones" referred to by Tavernier, and hitherto unidentified, were of tabashir, the highly porous silicious concretion found in the joints of certain bamboos. "Angels and Ministers of Grace" (Chapter VI) deals briefly with the angels of Jewish and Christian tradition, and with the assumed activities of a number of the miracle-working saints of the Christian calendar. The two chapters (VIII and IX) on amulets, "are devoted to the study of the talismanic "virtues attributed to precious stones and gems, as distinguished from the curative "powers with which they were credited," and contain a great quantity of miscellaneous material.

The book is excellently illustrated by a large number of full-page plates, some of them in colour, and a considerable number of line blocks, the latter being reproductions of illustrations in books of the fifteenth to eighteenth centuries, inclusive. There are, unfortunately, many small errors in the volume, but most of these manifestly have been due to faulty proof-reading, or to the inclusion of new matter or the exclusion of some of that originally prepared. These errors, which are not to be wondered at in the quoting of material requiring some seven hundred footnotes in the specifying of its origins, have, no doubt, in most cases already been observed and noted for correction in any future editions. The reviewer would suggest that the index be considerably enlarged in any future edition, because, although it at present takes up some fourteen pages, it is far from complete enough to serve the purposes of the student who wishes to use the book as a work of reference. In conclusion, the reviewer can say that, from his personal point of view, he has found the careful

reading of the book a pleasure, and that he has set down its name as that of a treasury of potentially useful material.

W. L. H

Negro History.

Woodson.

The Journal of Negro History. Edited by Carter G. Woodson. Vol. II, No. 1, January, 1917. Published quarterly. Association for the Study of Negro Life and History. Lancaster, Pa., and Washington D.C. Price \$1.00 a year, 25 c. a copy, postage extra.

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The current number of this interesting *Journal* contains papers on the African Slave Trade, the Negro in the Field of Invention, Anthony Benezet, People of Color in Louisiana (Part II), Notes on Connecticut as a Slave State, Letters of Anthony Benezet, Reviews and Notes. The *Journal* was started at the beginning of 1916, and it would appear to be the first serious attempt to place on permanent record the history and sociology of the American Negro. The enterprise is one which deserves success, since it should form a source of valuable information concerning events which have no parallel elsewhere, and which have in this country been far too little studied. If the *Journal* can maintain the standard of the present number it should gain a wide circle of readers.

H. S. H.

Madagascar.

Sibree.

A Naturalist in Madagascar. By James Sibree, F.R.G.S.

51

In his book, *A Naturalist in Madagascar*, Mr. Sibree has recorded his observations and impressions made during a residence of many years in the island.

The author presents his interesting information in the form of jottings on various subjects, which he made while on his journeys and expeditions throughout the country. On this account, his notes on ethnology, natural history, and the customs of the inhabitants, intermingled as they are, in every chapter, produce somewhat the impression of an *olla podrida* on the reader.

The work, however, does not intend to be a treatise on botany or zoology. Mr. Sibree's aim has been to enlighten the general reader on the subject of Madagascar, rather than the student, and in presenting an intelligible survey of the main features of the country, whether geographical, ethnological, or otherwise, he is much to be congratulated, as he has provided an excellent introduction to the further study of the island.

In the early chapters of the book, the author describes his first journey through the country in 1863, before the French conquest had taken place, when there were few roads, and the method of travel was by canoe along the rivers, and by palanquin (*filanjana*), through the dense forests of the east coast region, and his narrative will remind those who have travelled in other tropical lands of similar experiences.

The mountain ranges in Madagascar rise to the height of 9,000 feet, and the climate is stated to be hot and rainy from November to April, and cold and dry from May to October. The region around Antananarivo, the capital, which is situated on the bare highlands of the interior province, seems to be thickly populated, and from this elevated spot one hundred other towns and villages can be described in the surrounding district.

The author makes some interesting remarks on the influence which the missionaries have had in altering the native style of architecture in the territory of Imèrina, and on the deep fosses which still surround the ancient towns, and he mentions the remarkable fact that there is no native Hova style of carving or ornamentation, for anything like indigenous art does not seem to have ever existed among the natives of this district, though in another province there is carving, both in the houses and the tombs.

There are no large carnivora in Madagascar, and fleet-footed animals, such as

deer, are non-existent; on the other hand, it is the home of the lemurs and the aye-aye, a creature peculiar to the island, and the only species of its genus. It is interesting to note, though, how in some respects this great African island resembles other tropical lands, for example, in the heavy thunderstorms which occur in the afternoons in the rainy season, in the sharp awns of the grass seeds which penetrate the clothing of the traveller when proceeding on foot, and prick like so many pins, and in more numerous instances than can be given here.

Mr. Sibree gives some vivid sketches of the scenery of the island and of the curious volcanic districts of the interior, but of the outlying forest of the western side of the country, inhabited by the tribes called "Behosy," who are said to still exist in their primitive state, we hear little.

The custom of taboo (*fady*) is well known in Madagascar, but owing to the introduction of Christianity this observance is losing weight with the people.

With regard to the funeral customs of the Malagasy, these are doubtless of some antiquity, and differ according to the different races which inhabit Madagascar, the Hovas being of Malay origin, and the chiefs of the east coast tribes of Arab descent, but the author has not specifically traced the extent of the various racial influences on the population.

Mr. Sibree writes of Madagascar before the French occupation. It would have been interesting if he could have allotted a chapter to the changes effected in the country since then.

The book contains many good illustrations, and three maps.

E. F. N.

India: Archæology.

Archæological Survey of India. Report, 1912-13.

52

The first part of the Report for 1912-13 has been noticed in MAN for November 1916. The present volume, issued this year, contains the complete report. The most important part of it is Sir J. Marshall's full account of the excavations at Taxila. Few of the results of modern archæological exploration are comparable with the disclosure of the ancient capital of northern India, which was in the full height of its prosperity when Alexander's invasion took place. It had already had a long history, of which little is at present known; and it probably was the capital of a Persian province under the Achæmenian kings.

After Alexander's time it was in succession under the Maurya kings, the Bactrian Greeks, the Sākas, Indo-Parthians, and Kushans, until its final ruin during the Hun invasion during the fifth century A.D. The site was first identified by General Sir A. Cunningham, and some discoveries made by him are described in Vol. V of the old *Archæological Survey*, but no systematic excavation has been undertaken until now.

The undulating hill-surrounded plain in the north of the Rawalpindi district is an ideal site for a great city, and to the casual visitor in bygone days seemed to cry aloud for careful examination. This it has now received, and the results of the exploration, as far as they have gone, justify all the expectations which had been entertained. There are the remains of three distinct cities, locally known as the Bir Mound, Sirkap, and Sirsukh, of which the first-named is considered by Sir J. Marshall to be the earliest, the second to be the capital under the Bactrian Greeks, Sākas, and Parthians, and the third to be the Kushan capital. In addition to these important sites, there are several isolated groups, some of which are marked by Buddhist Stūpas. A few of these, visible above ground, have long been known.

The excavations at Sirkap have been most extensive, as can be seen on reference to Plates XVI, XIX, XXV, XXVII, XXIX, and XXXII, and the plans facing pp. 24 and 34. The other principal excavations have been at some of the outlying groups, especially the Dharmarājika Stūpa, the Jandiāl temple, and to a small extent

at the Bir Mound, the earliest city site. At all these places interesting discoveries were made, among which may be mentioned the Apsidal temple and the extensive palace at Sirkap, which in its arrangement suggests a comparison with Sargon's palace at Khorsabad. The silver scroll bearing a Kharoshthi inscription figured in Plate XI was found inside a steatite vase in the Dharmarājika Stūpa. This inscription, which has already formed the subject of a discussion among Prākṛit scholars in the *Journal of the Royal Asiatic Society*, is of great importance for the history of the Sākas in north-west India.

These excavations are also notable for the historical evidence regarding the succession of dynasties at Taxila, which can be derived from the find-spots of coins. Briefly, Sir J. Marshall finds that the site of the capital was transferred from Sirkap to Sirsukh after the time of Wēma Kadphises, and that no coins of Sōtēr Megas, Kanishka, Huvishka, or Vāsudeva have been found in Sirkap. He concludes with the remark: "Thus, there is now clear and incontrovertible evidence that these three kings, Kanishka, Huvishka, and Vāsudeva, were later than the two Kadphises." He thus claims that the controversy which has existed among scholars on this point has been definitely settled. Whether the evidence is "incontrovertible" or not, it may at least be admitted that he has made out a good *primā facie* case.

Space will not admit of more than a cursory allusion to the other contents of this volume. Dr. Spooner has continued his investigations on the site of Palibothra, and has found further evidence which supports his theory of Perepolitōen influence in Mauryan times. From Burma we have a very interesting series of terra-cotta reliefs representing Buddhist jātakas, probably of the eleventh or twelfth century. These are from pagodas at Pagan, and are fully represented in the plates. In the article on Conservation in Burma we have an account also of a purely Hindu (Vaishnava) temple of about the thirteenth century at Pagan, in the heart of Buddhist Burma. Allusion may here also be made to the conservation of the very fine Patothamya Pagoda at Pagan, of which a representation will be found in Plate XII of the first part of the Report for 1913-14. The bronze figure of a Bodhisattva given in the same plate, although found in this pagoda, seems to be rather Tibetan than Burmese in origin. This opinion is based not only on the general style of the work, which is purely Tibetan, but on the shape of the *vajra* or *dorje*, which lies in front of the figure. This figure has no suggestion of the *hīṇayāna* Buddhism of Burma.

Further notice of Part I for 1913-14 is reserved until the complete Report is received.

M. LONGWORTH DAMES.

ANTHROPOLOGICAL NOTES.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL INSTITUTE.

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(Donor indicated in parentheses.)

Hawaiian Legends of Volcanoes. Collected and translated by M. D. Westervelt. 7½ × 5. 205 pp. Illustrated. Ellis Press, Boston, Mass. 6s. net. (The Author.)

Customary Law of the Lahore District. Vol. XIII. Revised edition. Compiled by R. C. Bolster, I.C.S. 9½ × 6¼. 58 + liv pp. Government Printing, Punjab. 1s. 6d. (Secretary of State for India.)

The Austrian Academy of Sciences and Sir Edward Tylor.

At a meeting of the Austrian Academy of Sciences the President announced the loss which the Academy had sustained by the death of one of their honorary members, Sir Edward Burnett Tylor, late Professor of Anthropology at Oxford. The members expressed their sympathy by rising from their seats.

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FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

NATIVES OF PAPUA USING THE WOODEN KIPi TRUMPET
AND CONCH SHELL.

ORIGINAL ARTICLES.

British New Guinea.

With Plate E.

Chinnery.

Further Notes on the Use of the Wooden Kipi Trumpet and Conch Shell by the Natives of Papua. By E. W. P. Chinnery, **55**

F.R.G.S., F.R.A.I.

The wooden trumpet which forms the subject matter of papers in MAN, 1915, 11 (Seligman), and 1916, 16 (Beaver), is, I think, the native instrument of the bush tribes, and is distributed in one or more of the following forms throughout inland Papua. In many of those tribes who have had friendly communication with the coast, the conch also is used. In size and shape the carved instrument varies considerably, and, while the mouthpiece in some is a lateral hole near the closed apex, in others the apex is open, and the sound is produced by applying the mouth to a short inserted bamboo tube, cemented into position with beeswax. The last instrument is the only one I have seen amongst the tribes generically known as Koiari, who inhabit the Owen Stanley Range, between Mount Victoria and Port Moresby, but both forms are common to the bush tribes of the north-east and northern divisions. An emergency instrument in the shape of a short bamboo tube, the sound being produced either through a lateral hole or through one end, is in use everywhere, from the Dutch to the late German boundary.

The conch is a musical as well as a signalling instrument, and, as the notation varies, one or two additions to Mr. Beaver's examples may be of interest:—

Tribe.	Alarm.	Dancing.
<i>Gkerewa</i> (Goaribari), Western Papua.	— — — — — (Three long and short.)	— — — — — (One long and succession of short.)
<i>Kai-iri</i> (Kiko River), Delta Division.	— — — — — (All short.)	— — — — — (One long, then short.)
<i>Doboduru</i> , Northern Papua.	— — — — — (One long, then short.)	— — — — — (All long.)
<i>Koiari</i> , Central Papua	—	—
Tribe.	Announcing a Death.	Successful Hunting.
<i>Gkerewa</i> (Goaribari), Western Papua.	— — — — — (Two long, one short.)	— — — — — (Long.)
<i>Kai-iri</i> (Kiko River), Delta Division.	— — — — — (All long.)	— — — — —
<i>Doboduru</i> , Northern Papua.	— — — — — (Very long.)	— — — — — (Long and then short.)
<i>Koiari</i> , Central Papua	— — — — — (Very long.)	—

Signalling with the trumpet, or conch, is usually performed by males, but it appears that women may also use the instruments. In the delta of the Kikori River the women beat a kind of tatoo on the canoe sides with small, hard sticks to announce the killing of men and pigs—three slow, and a succession of quick blows—while the men sound the calls on the conch. Signalling by the women is not confined to the Gulf of Papua, for in the northern division women who have fulfilled certain conditions may acquire a privilege known as *mangora* (*ma* = a canoe), which permits them to command the attention of the villagers by rapping, smartly,

upon a piece of broken canoe with a hard-wood stick, kept in the village for the purpose. I have been disturbed at all hours of the night by the *mangora* and the shrill tones of angry females reciting their complaints, which in most cases were caused by amorous intruders.

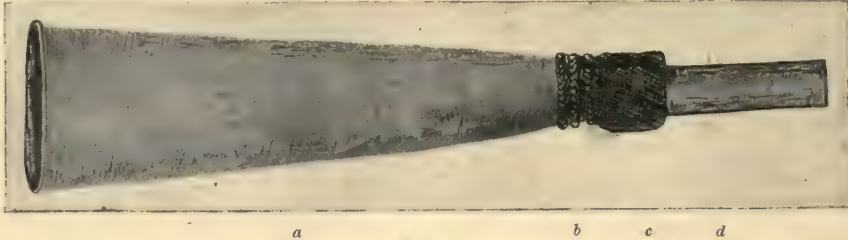


FIG. 5.

The Binandere tribe has many mythical tales (*kiki*) in connection with the origin of the conch shell as an instrument of utility, one of which, related by Doi-ino (whose name means "scented vine") follows:—

"Long ago, 'at the very first,' there lived on the Waria mouth (river late G.N.G.) an old man, his wife, with a male and female child. That man was Andarahau, and that woman, his wife, was Gobara. Now, for some reason, 'I know 'not what, nor did my father,' those people had been smitten with a curse, which closed their mouths and genital organs. 'Now it is bad to suffer in that way, and I 'think they must have committed some great wrong, perhaps they ate a "tabu" food, 'or perhaps they unconsciously spoke the name of a deceased relative, or one whose 'name should not have been mentioned.' At any rate, there they were, skilled in game and fish sorcery, with vegetable food in abundance, but not, alas, the capability of eating and enjoying it, 'it makes my belly ache with sympathy.' However, they made the best of things. Andarahau and his male child amused themselves in the practice of their skill, and caught many fish and much game, while the women

secured the pretty shells and weeds of the sea and decorated their houses 'until their eyes 'were pleased.' Much game and many fish fell to the weapons of the man and boy, but this was cast aside and wasted—many carcasses and bodies of animals lying in the bush where these two roamed.

"Now far away in the mountains where that river came out of a hole in the ground,

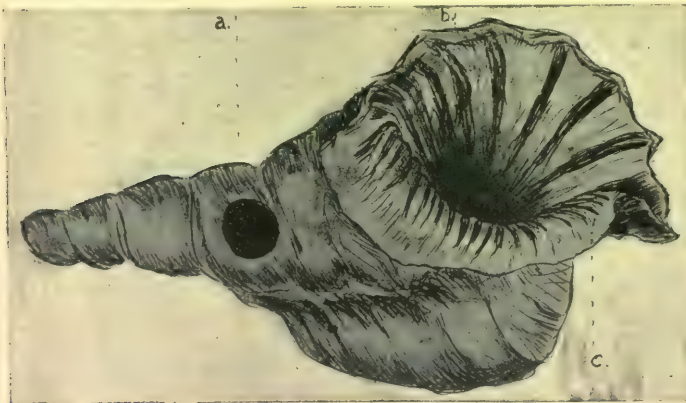


FIG. 6.

there lived a number of people, and those were frequently hungry, for game was not plentiful, and the land was stony and did not yield much vegetable food. One day two of their hunters, Kaumi and Besi, went further down river than was their wont, and found lying on the ground many carcasses of animals, killed and discarded by Andarahau and his boy. Now these two boys were fine hunters, and, although the dead game suggested the existence of people down river, they were

unafraid, and on the spot decided to visit the strange hunters, who had so much game they could afford to throw such fine animals away.

"Accordingly they returned to their village, told their fathers of their plans, and prepared for the journey. Then one morning, armed with their fathers' weapons, wearing charms made by their mothers to protect them from the machinations of evil spirits, and their head-dresses and *kortopu* (the decorations of a homicide)* 'as is the custom,' they set out and followed the course of the stream towards the rising sun. During their journey they saw many victims of Andarahau's prowess in the hunting field, and wondered greatly, until one morning they walked into the village at the river mouth, and gazed spellbound at the strange houses, and beautiful shells, and ornaments, the like of which they had never seen before.

"Now Gobara alone was in the village, and, perceiving the two youths, she reached for a conch shell, and sounded it. The splendid reverberating note of the instrument, and its beauty, evoked the undisguised admiration of the youths, who immediately began stripping themselves of their ornaments to exchange for it, but Gobara, amused at their excitement, and delighted with their youthfulness, and their strong lithe bodies, and light-coloured skins (for all the mountain people are 'light-skinned because their forests are so dense that the sun rarely reaches their haunts 'in the depths of the jungle'), beckoned them to be seated on mats made from the grasses of the swamps, which she placed for them in the shades of the coconut trees, and rubbed her hands over their skin affectionately, 'for she was a motherly soul, and such is the custom of those women,' till presently her man and children arrived.

"The family-which-could-not-eat was greatly pleased with the youths, and, while the men admired their weapons and ornaments, and the woman fussed over them, the girl prepared some food, which they ate and enjoyed, for it was cooked in pots with many strange vegetables which they had not tasted before. They were shown the many shells and weeds which had so pleased them, and these they fingered with great interest.

"On the days which followed they accompanied Andarahau and his boy on their hunting excursions and learnt many things they had not known, and so the days passed pleasantly and profitably, until at last the time came for them to return to their people. The parting was very sorrowful, for Kaumi had fallen in love with Andarahau's daughter, and she with him. 'It is no lie' that she was a fine girl, very attentive to his wants, and unlike the unmarried girls of his tribe, who were few, and inclined to be lazy, while their speech was incessant and their manners shrewish. But before parting Andarahau had asked them to bring their people to see him, and so that the boys could call them hurriedly together he loaned them the big conch shell with the powerful note which had so pleased them and which was so superior to the bamboo they had been accustomed to use, and so with many presents they departed, leaving the family-which-could-not-eat to take up life again where they had left it.

"The mountain people had commenced to make new weapons, for the prolonged absence of their youths had alarmed them, and they had intended to go in search of them, and so delighted were they at their return that a big dance was held, and during the festivities they heard of the family down river, and gazed on the presents brought back by the boys; no less were they delighted at the prospect of unlimited game and food. A friendship with Andarahau promised, and the dance finished, all set about the making of arm and waist bands from the many-coloured fibres of the mountain vines, 'for which these people are famous,' the manufacture of large netted bags, and other crafts 'in which they are skilled.' Long strings of dogs'

* This was in the original MS.

teeth were collected, and the beautiful plumed birds of the mountains were caught, and their gorgeous feathers and plumes made into head-dresses, and shortly after the return of the boys the people of Kaumi and Besi, laden with 'New Guinea somethings,' left their mountains for the new friends down river, 'whence the sun ascended.'

"And Andarahau was prepared for them, for every day he and his boy had killed game and lain it upon a long platform, where it had been smoking over never-dying fires, and when the people from up river entered the village, tired and weary, on one morning, the long rows of cooked pig, 'so much that they could not count it,' pleased their eyes and took the stiffness from their limbs, for the pigs on Andarahau's land were large and fat, not hard and sinewy like those which roamed their mountains, 'and the mountain people are very fond of pig.' The days of feasting and dancing which followed cemented the friendship, and many things were taught to the people from the mountains—things which were useful to them. Gobara, for instance, although she could not eat, was a wonderful cook, 'and good 'cooks are very useful, for they can give much pleasure and satisfaction,' and she taught the mountain women to make pots and cook in them, and she took them into the bush and showed them where and how to gather and prepare the edible herbs and vegetables, and that in itself meant much to the mountain men, for their wives had not known of the art of stewing, their only method of cooking food being the roasting on hot stones, 'they even did not know in those days how to cook in bamboos.' The fact that the family could not join them in the feasting caused much distress amongst the tribe from up river, and the father of Kaumi called together the principal men of his tribe, and they conferred secretly in the bush one morning, and as a result the father of Kaumi one day returned to his mountain home. Many days passed before he came back to the river mouth, but at last he arrived, and in a netted bag 'which these people wear' were many herbs, ferns, and vines, such as are carried by sorcerers, for Kaumi's father was, in fact, a man skilled in magic, and this magic he intended to use for the purpose of restoring the family the use of their afflicted organs, for was not his son in love with the girl of Andarahau, 'and it is not good to love in that manner one so afflicted.'

"A house was erected in the bush near by, and he and his family were induced to enter and sit around the fire which blazed in the centre. In Andarahau's hands the herbs were placed, and he was instructed to throw them in the fire when called upon to do so. All holes were then closed, and Kaumi's father called to Andarahau to throw upon the fire the herbs; he did so, and immediately there arose a dense volume of pungent fumes, which filled the room and made them choke as they inhaled them. Around the room they staggered in agony, for their bodies were filled with the powerful smoke almost to bursting point—so full were they that presently their bodies could not contain it, and the openings, which had been closed, burst open, and at last those outside who had been anxiously listening, heard the cries from within, and opened the door and caught the members of the family as they staggered out, half suffocated and half blinded. The elder men, however, were ready, and soon revived them and took them back to the village, where the mountain women had prepared for them, in the manner taught by Gobara, a tempting stew of shellfish and vegetables, 'which is good for sick people to eat.'

"In this manner the 'family-which-could-not-eat' became cured. A huge feasting and exchange of presents followed, and the marriage of Kaumi and the girl was celebrated, and for his wonderful magic in curing the afflicted family Kaumi's father was presented with the much-coveted conch shell:—'And that's what for.'

According to the myths of the Binandere, the corrugated markings on the lips of the shell were, in the words of Doi-ino, caused as under:—

"'Right at the very beginning,' when the conch shell was the toy of *imbaga*

(crocodile), who lived at the mouth of Pai-awa River (late German New Guinea), there was, where Iasia hill now stands on that river, a large Iguana (*Varanus*), known as *duduba* (Binandere language). Now *duduba*, one day, was roaming on the beach near the river mouth in search of food, and he came across the conch shell, with which *imbaga* had been playing but had left on the sand a few moments before while he slipped into the water to waylay a school of unsuspecting fish which frolicked a short distance out. *Duduba*, 'in the manner of Iguanas when they 'are curious to know what a hole conceals,' stuck his head into the opening of the shell, and heard its murmur. Now this puzzled him not a little, but the sound also pleased him, so, being of a curious nature, 'as iguanas are,' he decided to take the shell along with him, for, while it promised to interest him until he had accounted for the murmur, the sound also soothed him, and he returned with it to his haunts.

"*Imbaga*, having filled his belly with fish, returned to the beach to play with his toy, but to his rage found it missing. The footmarks were plain, however, and he lost no time in following them, and presently he came upon the unsuspecting *duduba* seated on the ground calmly munching *kovi*, 'a small insect relished by Iguanas,' and, lying alongside, was the conch.

"Approaching warily, *imbaga* snatched the shell by the right lip, just as *duduba*, seeing him, grabbed the left. A tussel ensued, but the strength of *imbaga* prevailed, and, recovering his property, he called *duduba* things that are bad, and slipped into the water. So hard did they pull during the struggle for the shell, that *imbaga* left the imprints of his claws large and wide on the right lip, and the nails of *duduba*, small and closely set, are imprinted on the left lip."

N.B.—Words in inverted commas express the literal translation, as nearly as possible, of the explanatory remarks made by the man Doi-ino in giving me the stories.

DESCRIPTIONS OF PLATE AND ILLUSTRATIONS IN TEXT.

PLATE E.

FIG. 1.—Miai tribe, Hydrographers Range, in the valley of the Mamama River, sounding wooden trumpet.

FIG. 2.—Koko native (wearing homicidal head-dress), sounding wooden trumpet, K.D. Papua.

FIG. 3.—Ava-Kiko native sounding bamboo trumpet, Kikori River, Delta Division.

FIG. 4.—Koko native, Kumusi Division, sounding conch shell.

ILLUSTRATIONS IN TEXT.

FIG. 5.—Wooden trumpet used in the bush tribes of Northern Papua and in districts south of Mount Victoria (one-third natural size).—(a) Wooden funnel, (b) Plaited cane bands, (c) Beeswax, (d) Bamboo tube (mouthpiece).

FIG. 6.—Common conch shell used throughout Papua.—(a) Mouthpiece, (b) Corrugations of mythical crocodile, (c) Corrugations of mythical iguana.

E. W. P. CHINNERY.

New Guinea.

Haddon.

Notes on Wooden Trumpets in New Guinea. By A. C. Haddon.

56

The following notes on the distribution of wooden trumpets in Netherlands New Guinea, and on the Sëpik River are supplemental to Mr. Chinnery's paper, MAN, 1917, 55.

Sir William MacGregor says that the musical instruments of the Tugeri, or Kaia-kaia, are the drum, Pan's pipes, and the coconut-shell fashioned like an ocarina (*Annual Report, British New Guinea*, 1895-96 [1897], p. 56); but in the *Annual*

Report for 1897-98 [1898], on pl. 26, "Tügeri Musical Instruments," he figures two objects which have every appearance of being conical wooden trumpets, presumably with a terminal hole. O. Finsch is of a similar opinion (*Südseearbeiten*, 1914, p. 334.). Each trumpet is a wide cone with an elongated end; where the narrow part begins there appears to be an annular swelling or bead, to which a long loop is attached; otherwise they seem to be devoid of carving. These trumpets are not unlike that figured by Seligman (MAN, 1915, 11), but the latter has a lateral hole, as has that figured by Beaver (MAN, 1916, 16). On writing to my friend, H. W. Fischer, of the Rijks Ethnographisch Museum, Leiden, to ask if he knew anything about these trumpets, he wrote to say that he had seen a specimen from Mëraukë in a private collection. Later he wrote that he had secured the specimen for the Museum, and he kindly sent me a photograph, which he permits me to reproduce (see Fig. 1). The fretwork handle is a new feature, and the flat carving in front of it is also peculiar. The hole is terminal, and the total length is 87 cm. (34½ in.).

A. F. R. Wollaston (*Pygmies and Papuans*, 1912, p. 143), states that, "Beside the drum the only instrument of music they [the Papuans of the Mimika River, 136° 30' E. long., on the west coast] have is a straight trumpet made from a short piece of bamboo. This produces only a single booming note and is not used at the concerts."

H. W. Fischer (*Nova Guinea*, VII, 1913, p. 133, pl. xxii, pp. 8-12), describes what he terms "Bambusflöten," which are single internodes of bamboo, 31-45 cm.



FIG 1.—WOODEN TRUMPET FROM MËRAUKË.

long, one end being open, the other being perforated at the node. As there are no lateral openings they can scarcely be flutes in the

true sense of the term. The surface may be smooth but is generally carved. Two specimens came from the Lorentz River. A similar object is termed in *De Zuidwest Nieuw-Guinea-Expeditie*, 1904-5, Leiden, 1908, p. 602, pl. xi, No. 468, an exorcising tube (Bezweerkoker) from East Bay (Oostbaai), which is supposed to serve for blowing lime. Thus identifying this implement with the tubes out of which Captain Cook thought he saw smoke blown. One or two of Fischer's specimen's have contained lime. When Wollaston came down Island River, on the west coast, he saw some people who "holding short bamboos in their hands, jerked them in our direction and from the end came out a white cloud of powdered lime, which looked like smoke. This custom was noticed by Rawling when he first visited the village of Nimé, and it was recorded by some of the early voyagers (Captain Cook, H.M.S. *Endeavour*, 1770; Kolff's voyages in Dutch Brig of War *Dourga*, 1825-26), but the meaning of it has not yet been explained" (*loc. cit.*, p. 219).

O. Schlaginhaufen (*Abhandl., K.-Z.-A.-E.-Mus.*, Dresden, XIII, No. 2, 1910, p. 35) appears to have been the first traveller to describe wooden trumpets from New Guinea. His two examples had a lateral hole, were carved all over, the narrow end being carved to represent an animal's head; their lengths respectively were 37 and 62.5 cm., and their diameters 13 and 14 cm. He obtained them at the last village he visited on the Sëpik (Kaiserin Augusta River), apparently about 386 km. from the mouth. F. von Luschan, *Baessler Archiv*, I, 1911, p. 111, fig. 20, describes a well-carved specimen from the Sëpik, 111 cm. in length and 13 cm. in

greatest diameter. R. Neuhauss (*Deutsch Neu-Guinea*, I, 1911, p. 315), says that in the middle region of the Sëpik wooden horns are used for signalling which are 50 to 100 cm. long, with an opening for the mouth at the side near the tip, as in the Triton shell trumpet. He adds: Although nothing very certain is as yet known about the language of these people, everything points to their being immigrant Melanesians, among whom the use of the Triton shell is inherent. There are no shells of this kind in the river, so what could be more obvious than that these people should carve an instrument of wood to replace it. In Fig. 215 he illustrates a typical carved trumpet and a plain cylindrical form, both having a lateral aperture; they came from 320 to 340 kilometres from the mouth of the river. On p. 315 he also gives the notes of some of the signals made with the Triton shell trumpet by natives on the north coast of Huon Gulf. O. Reche (*Der Kaiserin-Augusta-Fluss*, 1913, p. 430, figs. 442-446, and pl. lxxx, fig. 1) describes several wooden trumpets, with a lateral hole, from Angöröm (112 km.), Kämbrinüm (166 km.), where they are known as *yüäri* or *tuai*, and at 293 kilometres village (? Radja), where they are called *kul*. They vary in length from 55 to 92 cm. ($21\frac{3}{4}$ to $36\frac{1}{4}$ inches). The narrow end may terminate in a blunt point or be carved into a human or animal head, and there may be other simple carving.

Reference may also be made to wooden or bamboo trumpets, or singing tubes from Australia. R. W. Coppinger, *Voyage of the "Alert"*, 1883, p. 204; R. Etheridge, *Macleay Memorial Volume (Sydney)*, 1895, p. 242, pls. xxx (fig. 7), xxxi (fig. 6); E. C. Stirling, *Rep. Horn Ex.*, IV, 1896, p. 75; W. E. Roth, *N. Queensland Ethnog. Bull.*, 4, 1902, p. 23; W. Baldwin Spencer and F. J. Gillen, *Native Tribes, C.A.*, 1899, p. 607, figs. 119, 4; *Northern Tribes, C.A.*, 1904, p. 705, fig. 278; H. Basedow, *Trans. Roy. Soc., S. Australia*, XXXI, 1907, p. 48 (with further references); W. Foy, *Ethnologica*, II, 1913, pp. 3, 4; W. Baldwin Spencer, *Native Tribes, N.A.*, 1914, p. 390, pl. xxvi.

A. C. HADDON.

Pacific Islands.

Edge-Partington.

Hawaiian Squid-hook Sinkers and Sling-stones. By J. Edge-Partington.

57

My attention has been drawn to a mistake made by Captain Cook in Vol. II, p. 248 (Third Voyage), 1784, and handed on by Wood in *Man and His Handiwork*, II, p. 434, in which the sinker of a squid-hook is described as having been used as a sling-stone. Cook says "We also suspected that they use slings on some occasions; for we got some pieces of hæmatites or blood-stone, artificially made of an oval shape, divided longitudinally, with a narrow groove in the middle of the convex part. To this the person, who had one of them, applied a cord of no great thickness, but would not part with it, though he had no objection to part with the stone, which must prove fatal when thrown with any force, as it weighed a pound. We likewise saw some oval pieces of whetstone well polished, but somewhat pointed towards each end, nearly resembling in shape some stones which we had seen at New Caledonia in 1774, and used there in their slings."

Brigham in the *Memoirs of the Bishop Museum*, Vol. I, No. 4, *Hawaiian Stone Implements and Stone Work*, p. 20, figures and describes the squid-hook, with several plates of stone sinkers; these exactly tally with Cook's description of the "stone of hæmatite, artificially made of an oval shape, divided longitudinally, with a narrow groove in the middle of the convex part." Brigham, both in the memoir and in his catalogue of the Bishop Museum, 1892, II, p. 102, and Plate 17, shows how these sinkers are attached to the squid-hook.

With regard to the sling-stones all authorities agree as to their size and shape. Cook, in the paragraph above quoted, Brigham, in his catalogue, II, p. 68, describes

them as follows: "The average size of these sling-stones, when fashioned into the usual form, pointed at the ends, is 2.4 inches on the axis, and 1.7 inches transverse diameter. The weight averages 5 ozs., with a range from 10 to 2½ ozs.," and in the Memoir, p. 13, he describes their manufacture. Alexander in *A Brief History of the Hawaiian People*, speaks of "smooth round pebbles," and Jarves' *History of the Sandwich Islands* of "small stones;" not a single writer bears out Cook's statement, that these sinkers were used as sling-stones; they were, however, used as net-sinkers, and Dr. L. Gordon Yates figures one so used in "Some Relics from the Hawaiian Isles," published in *Records of the Past*, Part IV, Washington, 1902. It was probably a squid-hook sinker put to this use which Cook saw.

A "cord of no great thickness" hardly describes the Hawaiian sling, which was roughly made of Paudanus leaf. J. EDGE-PARTINGTON.

Ethnography.

Peake.

The Racial Elements concerned in the First Siege of Troy.

By 58

Harold Peake.

I am very grateful to Mr. Migeod for the interest he has taken in my paper, but may I suggest that he read it again, when he will find that I have not altogether ignored the existence of the Homeric epics. On pages 154 and 155 I mentioned that the campaign described in the Iliad led to the destruction of Hissarlik VI, while it was to the fall of Hissarlik II that my paper referred.

With regard to the evidence as to the inhabitants of Greece given in Genesis x, 2 and 4, I find that even the most orthodox commentators, such as Canon Driver, are agreed that these verses were written by the author generally known as P., who is believed to have lived at the time of the Babylonian captivity. It was only natural to assume that the ethnological speculations of an exiled Jew of the sixth century could have little evidential value as to the inhabitants of Europe towards the close of the third millenium.

Whether Greeks were in Greece at the time in question depends on what is meant by Greeks; as I said on page 155, such terms are misleading at these early dates. The question is too large to enter into here; but all scholars are agreed that the Greeks were a mixed people, and the question to decide is whether they were composed of two elements, as most authorities, following Professor Ridgeway, are inclined to believe, or whether three racial elements entered into their composition, as I am beginning to suspect from various pieces of evidence, anthropological, archæological, mythological, and linguistic.

HAROLD PEAKE.

Anthropology.

Nuttall.

The Piltdown Skull. By T. E. Nuttall, M.D., F.R.A.I., F.G.S.

59

Having read in MAN the two recent communications dealing with the Piltdown skull, and having interested myself in the already bulky mass of literature dealing with this skull, I should like to offer a few personal impressions anent its size and type.

Being a medical man, and also a student of Anthropology, I can perhaps claim that my interest is somewhat more enlightened than that of the ordinary layman. Moreover, I happened to be present at the Geological Society meeting (December 1912) at which the reconstructed skull and mandible were exhibited and described. I was present also at another meeting of the afore-mentioned society (December 1913) at which the skull and mandible, together with the then newly-discovered tooth, were exhibited and discussed.

Speaking of the size of this brain case, I am persuaded that the truth, in this, as in so many other, instances, lies between the widely-divergent estimates of the

two conflicting schools of thought which are represented in the learned and distinguished gentlemen who effected the reconstructions. Dr. Smith Woodward's first estimate of the cranial capacity of the Piltdown skull (1,070 cc.) is undoubtedly much too low. Probably his amended estimate, though higher than the earlier, errs considerably on the small side. On the other hand, Professor Keith's early estimate of 1,500 cc. was certainly too high, and not improbably his present estimate of 1,397 cc. errs somewhat in the same direction, for it must be remembered that he classes this as a female skull, and regards it as corresponding to a male skull of 1,550 cc. Professor Keith's estimate is, I feel certain, much nearer the truth than either of Dr. Smith Woodward's.

It may seem presumptuous to attempt to adjudge where such eminent doctors disagree, but I can at least claim to have been a very interested onlooker in this matter, and it will readily be admitted that an onlooker sometimes obtains a more comprehensive view of a "game" than those who are engaged in it. Certainly the onlooker is more likely to take a dispassionate view of events than the persons directly concerned in them.

In the first reconstruction of the Piltdown skull from its all too scanty fragments, Dr. Smith Woodward was in error in the placement of at least one fragment. There is little, if any, room for doubting that the left parietal bone was wrongly placed, and almost certainly the right parietal was somewhat out of position, as were also the two occipital fragments—large and small. In his reconstruction Professor Keith no doubt corrected one or more misplacements present in Dr. Smith Woodward's reconstructions, but did Professor Keith himself escape error in the placement of the bony fragments? One wonders. Probably he did not. It would be a marvel if he did.

Clearly there is room for differences of opinion, even between experts, regarding the true position of the occipital and left parietal fragments; for, after having had time to reconsider the whole matter, and after a second reconstruction of the skull by Dr. Smith Woodward and Professor G. Elliot Smith, there exists a considerable difference between the size of the brain case as reconstructed by them and its size as reconstructed by Professor Keith. Has Professor Keith made the brain case rather too large? I more than suspect that he has. For, in a test reconstruction of a skull which was to be built up from bony fragments similar to those comprised in the Piltdown "find," Professor Keith did actually produce a slightly larger brain case than that of which the fragments had previously formed a part. True, the reconstructed skull was not much larger than the original, but it was larger, a fact which possibly enough points the direction in which Professor Keith's method of reconstruction is liable to err. The actual figures of this test case are, 1,415 cc. for the reconstructed skull as against 1,395 cc. for the original one. The slightness of this error must have been distinctly "reassuring" to Professor Keith. Further, Professor Keith believes in the very high antiquity of man. He holds that man originated in pre-Pleistocene time, and, could it be proved that at the early period to which Piltdown man is assigned, a human being possessed of a comparatively large skull was already in existence, Professor Keith's views regarding the great antiquity of man would receive very strong support. Of a certainty, Professor Keith would not consciously allow his well-known views anent the high antiquity of man to influence him in reconstructing the Piltdown or any other skull; still, we are liable—all of us, and quite unconsciously—to find that which we desire or expect to find.

Precisely similar remarks apply to Dr. Smith Woodward and his reconstructions, except that his tendency to err lay in the opposite direction. Dr. Smith Woodward believes that man in origin, as also in development, is a creature of Pleistocene

time. Therefore, if he could prove that human beings possessed of but meagre cranial capacity, say 1,070 cc. or a little more, were in existence at or about the end of the first half of the Pleistocene period, his views regarding the period of origin of man would be upheld, or, at least, would not be overthrown.

Moreover, it should be observed that, while Professor Keith's earlier estimate of the capacity of the Piltdown skull was *larger* than his more recent estimate (the figures being 1,500 cc. as against 1,397 cc.), Dr. Smith Woodward's earlier estimate was *smaller* than his more recent one. It is remarkable, and probably not without significance, that the errors in the earlier estimates of these two eminent scientists vary in consonance with their respective views regarding the period of man's origin.

How anyone can hold that only a slight error was made in the first reconstruction of the Piltdown skull I do not understand, nor can I concur when Professor G. Elliot Smith defends, as accurate, his preliminary report dealing with the endocranial cast. Professor G. Elliot Smith seems to assume that the errors of the first reconstruction affected the right side of the brain case only; the left, which is the side he described, being regarded as free from error. It seems clear, however, that a reconstruction carried out in accordance with Professor G. Elliot Smith's suggestions would so alter Dr. Smith Woodward's reconstruction as to produce a considerable change in the position of the left parietal fragment, and incidentally a material change in the left side of the endocranial cast.

All told, I feel bound to agree with Professor Keith when he argues that the difference between his and Dr. Smith Woodward's reconstruction is not trifling and immaterial, but great and important—important because the difference between the two reconstructions applies not at all to the width of the brain case, only very slightly to its length, but almost entirely to its height. If Dr. Smith Woodward's early reconstruction be even approximately correct, then the Piltdown skull was comparatively small, and was flattened from above downward after the manner of the Neanderthal skull, although in other respects it is most unlike any Neanderthal skull at present known. Per contra, if Professor Keith's reconstruction be as near the truth as I believe it to be, then Piltdown man was possessed of a fairly large skull, a skull not only wide and long, but high also; a skull enclosing a brain possessed of a cerebrum of goodly size, in short, a brain case comparable in many respects with that of modern man.

Should Professor Keith succeed in establishing his views regarding the size and general form of this skull, and should it be finally decided, as seems likely, that Piltdown man lived in early Pleistocene times, then we must perforce believe in the existence of man in Pliocene, if not in earlier, times.

T. E. NUTTALL.

REVIEWS.

Archæology.

Osborn.

Men of the Old Stone Age: Their Environment, Life, and Art. By Henry Fairfield Osborn, LL.D., &c., Curator Emeritus of Vertebrate Palæontology in the American Museum of Natural History. London: G. Bell and Sons, Ltd., 1916. Pp. 545. Pls. VIII, Text Figures 268. Price 20s. net.

If this had been a time of peace and we had appealed for an impartial judge to give a verdict on the various and diverse explanations which Europeans have given of the ancient races and cultures of their continent, it is more than probable that our choice would have fallen on the author of this work, Dr. Henry Fairfield Osborn. He has spent a busy lifetime in resurrecting from broken fragments the fauna of past epochs and buried continents; he is a master in the art of reconstruction of past

worlds of living things. It is very evident from this book that he has taken infinite pains to weigh the evidence we have all put forward—the evidence of France, of Italy, of Belgium, of Germany, and of England—and his considered and reasoned verdict is for France—for Boule and for Breuil, with Germany as a bad second—Penck and Brückner being accepted as time-keepers. We do not grudge our colleagues of France their victory; they deserve it; their glorious country provided opportunities—that was their fortune; but they used them—that is their everlasting merit. Out of chaos and welter of artifacts they have organised an orderly sequence of ancient human cultures—a sequence which increasing knowledge leads us to believe holds good for all western and central parts of Europe—and yet I cannot help thinking our judge has been over-persuaded by the clear, definite, logical manner in which our French colleagues have presented their case; the evidence produced by Rutot and Reid Moir of a continuous sequence of human flint cultures from the end of the Pliocene to our modern epoch is brushed aside, which cannot well be done by anyone who has studied and examined their records. Nor do we think that any work which is to deal fully with *Men of the Old Stone Age* can exclude, as Dr. Osborn has, his own continent. Has North America nothing to show of men of the Pleistocene?

It is the big broad lines in which the problems of ancient Europe are approached in a book like this which should engage the critic's attention, not the presentment of minor details. There are those of us who believe, on the evidence produced, that Europe has been the continued abiding place for mankind at least throughout the whole of the Pleistocene period, for which Dr. Osborn accepts a duration of half-a-million of years. There are others of us who look on the opening half or more of the Pleistocene period in Europe as sterile so far as man is concerned. That is the opinion Dr. Osborn favours; with Boule, he presses the races which have left us the rich records of the pre-Chellean, Chellean, and Acheulean cultures within the bounds of the third interglacial period—one to which he allows a period of some 100,000 years. Then, some 50,000 years ago, comes in the fourth great glaciation; the Mousterian culture appears, Neanderthal men come on the scene. At the close of that period come a succession of cultures and a succession of races of the modern type. That is an orthodox and easily told version of our ancient story; it has the merit of its straightforward simplicity. As things fall out in this world they are rarely straightforward, and never, so far as concerns the rise and fall of mankind, very simple.

Dr. Osborn—as is the case with all who adopt this view, now wearing thread-bare—regards Pleistocene Europe as a stage—a stage where human races and human cultures appear, play their part, and then disappear. Behind the “flies” of this European Pleistocene stage is Asia; Asia is the huge dressing room in which all the “making up” is done—ancient Asia, of which we know almost nothing, and therefore can believe it capable of anything. In Asia the cultures are fashioned, and the new races of mankind are evolved to cut transitory figures on the ancient European stage. Why should evolution be a monopoly of Asia? Are we not too apt to solve our difficulties in a childish way, and make Asia a fairy factory of anthropological needs? Does the law of evolution not hold for the soil of Europe? In every one of these ancient European cultures we see evolution at work; from the dawn to the close of every cultural period we see that the fashion is always changing. Did those ancient races, who fashioned flints, undergo no change during the centuries which passed?

The story of *Men of the Old Stone Age* cannot be dissociated from the explanation we must give of how the world has come by its present diverse assemblage of races and cultures. We cannot hope to pierce the darkness of the

past except we carry with us the light given by a knowledge of our modern world and its races, and perhaps it is just the lack of that knowledge which has kept Dr. Osborn from appreciating at its worth our British evidence. For him *Pithecanthropus* is exactly the evolutionary stage one would expect man to have reached in the first inter-glacial period of the Pleistocene; he sees no more difficulty in adding a few ounces to the brain than to the liver. The problems of the liver and brain are infinitely different, as those who are acquainted with the elaborate structure and organisation of the brain well know; to me nothing less than a biological miracle could turn the brain of *Pithecanthropus* into the brain of Neanderthal man in the short space of two or three hundred thousand years. Nor, to do Dr. Osborn justice, does he really think this was done; he represents *Pithecanthropus*, Heidelberg man, Neanderthal man, and Piltdown man as branches which separated from the ancestral stock of modern races at the beginning of the Pleistocene period. For him humanity is a Pleistocene product. That is a bigger burden to throw on the short period of the Pleistocene than Dr. Osborn has fully fathomed.

Dr. Osborn can be very adroit in the handling of delicate problems. There are the questions relating to the people who left us the pre-Chellean, the Chellean, and Acheulean cultures. No definite answer is given, but indirect statements leave us in no doubt that in Dr. Osborn's opinion these cultures were fashioned by races of the Neanderthal type—races bridging the gap, not a big one, between the Heidelberg type of the second inter-glacial and the true Neanderthal type which we know inhabited a great part of Europe in the final glaciation, the time of the Mousterian culture. Now, it is a very remarkable circumstance that all the human remains which have been found shut down under pre-Mousterian deposits should invariably prove to be men of the modern type. Our French colleagues have rejected all such finds; they are out of place; their very occurrence breaks a leading palæontological axiom—that Pleistocene forms cannot be identical with modern forms because evolution has always been at work; ancient and modern forms cannot possibly be identical forms. There is, for instance, the skeleton found at Galley Hill. The Galley Hill man is of the modern type. He may be rejected as impossible. Dr. Osborn has his own way of getting rid of him; the part of our 100-foot terrace in which he was found is, in his opinion, only of late Pleistocene date. The date of Galley Hill is Solutrean, not Chellean. In the section of the Thames valley (Fig. 8) the Galley Hill remains are indicated as coming from the middle (50-foot) terrace, not the upper (or 100-foot) one. Discoveries similar to those at Galley Hill, in the gravels of the Somme, Seine, and Italy are rejected as unworthy of credence. So far as Dr. Osborn is concerned, our ancestors do not appear on the stage until the glacial period is drawing to a close, some 25,000 years ago.

From a British point of view our author is all at sea as regards the discovery at Piltdown. For him the skull of *Eoanthropus* is that of an Englishman of the third interglacial period practising a pre-Chellean culture. The lower jaw is that of a chimpanzee. It is when we come to deal with the treatment of all the evidence relating to the discovery at Piltdown that our implicit faith in Dr. Osborn's judgment breaks down. He clearly has not realised a number of basal principles which all who deal with fossil finds of man and apes must ever bear in mind. We must expect, if evolution be true, to find forms in which ape and human characters are reproduced in various combinations. Suppose we had only found the forehead of Neanderthal man, and known nothing of his great brain and other human characteristics, who would have doubted the correctness of assigning that forehead to an anthropoid ape? Even with the whole calvaria before him Dr. King was inclined to place Neanderthal man amongst the apes—the man we now know to have buried and revered his dead. Who would have dared associate the calvaria of *Pithecanthropus* with the femur, if

that femur had been found in the same stratum but a mile or two distant? The calvaria would have been assigned to an ape-like man, the femur to a modern man. And now when the same problem comes up at Piltdown—with the jaw showing a texture exactly that of the skull, the same degree of fossilisation and of a corresponding size, with teeth as unlike chimpanzee teeth as teeth can well be—we have an authority like Dr. Osborn giving countenance to an error which is likely to bring a feeling of insecurity to those who are not qualified to form a judgment at first hand. He cannot blame his British colleagues if they fail to give his judgment that due which his great services to palæontology should naturally demand from them.

On the other hand, one cannot but admire the thorough manner in which Dr. Osborn has applied himself to the problems of Ancient Europe, the labour he has taken to examine evidence at first hand and visit sites in person, and the clearness and precision he has stated and illustrated, the evidence and the conclusions he has drawn from that evidence. It is a book to read and to refer to, as good a book on the subject of Ancient Man as has yet appeared in the English language—in many senses it is the best—in spite of the fact that I think he has done less than justice to the work and opinions of his British colleagues.

There are minor details which one might have passed in review, but I shall mention only one of them. Dr. Osborn refers to the classic deposits at Hoxne, and to the arctic beds there. He definitely states that the arctic bed at Hoxne and that discovered in the Lea valley by Mr. Hazzeldine Warren are contemporary deposits—both post-Mousterian and of the fourth period of glaciation. Now, the arctic bed at Hoxne lies deep under the classic brick earth in which the first palæoliths were discovered by John Frere in the year 1797, and they are palæoliths of the Acheulean type, they belong to that culture and date. The Lea valley arctic bed belongs to a much later date—late palæolithic—according to its discoverer, Mr. Hazzeldine Warren. It is quite true that we have much to learn regarding the sequence and approximate dates of our English Pleistocene deposits, and at the present time our geologists and archæologists are modifying and extending their opinions regarding them, but I am certain that if Dr. Osborn will give them the attention he has given to those in France he will alter some of his conclusions in one of the many new editions into which his book will assuredly pass.

A. KEITH.

Linguistics.

Wallis Budge.

Miscellaneous Coptic Texts in the Dialect of Upper Egypt. Edited, with English Translations, by E. A. Wallis Budge, M.A. 1216 pp., with 40 Plates and 20 Illustrations in the text. British Museum. 1915. **61**

The chief interest of this book is for students of Eastern hagiology or of the Coptic language. The manuscripts are of the tenth and eleventh centuries, and consist of sermons preached on various occasions, some martyrdoms, and part of the Apocalypse of Paul. Coptic literature is chiefly religious and rather dull, and this book is no exception to the general rule, but in all Lives of Saints there are certain details which are of interest to the anthropologist. The translation of each text is given in full, and, though very free in parts, is sufficiently accurate to make these details available. The unfortunate size and unwieldy shape of the book make it difficult to handle, and this, even more than the highly specialised nature of its contents, is likely to discourage the general reader. But there are some interesting points which deserve quotation. For instance, in the encomium on Theodore the Anatolian, there is a curious illustration of the belief in the magical powers of pictures. The portraits of the two warrior-saints, Theodore and his cousin Claudius, were painted on tablets in the bedroom of the queen, the mother of Claudius.

These appear to have been considered a palladium against the enemy : " If a war comes to pass between the Persians and the Romans, and they begin to fight with one another, at once the holy Theodore sends out his voice in the frontier of the Romans, saying, ' Theodore the Anatolian and Claudius have come against you to destroy you.' And at once the horses on which are mounted the portraits of the two, which are painted in the bedroom of the queen, they neigh and rush forth at once into the land of all the Persians, because of the name of the holy Theodore the Anatolian and Claudius, before they fight." This is not the only instance of the picture of a Coptic saint which showed a warlike tendency. References to the ancient religion are occasionally found, as when Bishop Macedonius went at Aswan to a temple in which was a sacred hawk. The connection between the idol in the temple and the hawk is not made clear, but the hawk is called *Pnoute* (God), and was served by a priest and his two sons. Macedonius was considered to have done a meritorious deed when he killed the hawk and flung its head into the altar fire. The archangel Michael appears to have been endowed with some of the characteristics of an ancient deity. The twelfth of the month Payni is his great day. On this day he dips his right wing three times into the Lake of Fire, and all the souls who can seize upon it are drawn out and delivered from torment. On the same day also he enters behind the veil which screens the God-head from the sight of the dwellers in heaven ; and when he emerges the angels know, by the robes he wears, whether the earth will be fertile or barren in the coming year. It is Michael who obtains from God the waters of the Nile, the dew, the rain, and the growth of the fruits of the earth. The name of the great archangel is also a charm against ill-luck and barrenness of fields and vineyards, for " the name of Michael shall be over them like strong armour."

M. A. MURRAY.

Babylon.

King.

A History of Sumer and Akkad. By Leonard W. King. 8vo, 362 pp., 36 plates, 69 figures. Chatto. 1916. 18s.

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This volume is an exact reprint of the first issue in 1910, with only a slight difference in title page, imprint, and advertisement. Of the great merits of this summing up of the scattered materials of Mesopotamian history it is hardly needful to write. It is well known what valuable service Dr. King has rendered in arranging his three-volume history of that region, of which two volumes have now appeared. As an author who can deal with the whole information with first-rate knowledge and judgment, his work is essential both for the public and for students. In this reprint, however, we must regret that the publishers have not here provided that Dr. King should put his first volume in touch with his second. Some important discoveries in the last six years must modify the original issue, and to reprint literally is an injustice to the author. It will be useful to readers to note briefly the new positions which should be taken into account.

In the present volume of 1916, page 63, the dating of the first dynasty of Babylon is reduced to "about the middle of the twenty-first century B.C."; the date of 2232 B.C. given by Berossus is set aside, "it is safer to treat the date 2232 B.C. as without significance," as "purely arbitrary." Since that was written in 1910, Dr. King, in his volume on Babylon (1915), describes the astronomical results, from the risings of Venus, recorded on tablets, and states that these place the first dynasty of Babylon in 2225 B.C., and that this "coincides approximately with that deduced for the beginning of the historical period in Berossus." This is not only a question of a detail of 180 years in an early history, it is a test case of the validity of

Oriental history as known to writers of the Greek age. Berossus was sneered at as without significance and arbitrary in his dates; moderns assumed that they certainly knew better than he did with all the survival of early historians before him. Now we have to acknowledge that our arguments were worthless, when we come to a little certain information. This must react on the status of other compilers, such as Manetho. Other discoveries affect one of the most important chapters of the book, that on the cultural influence of Sumer in Egypt. The carved ivory knife-handle which was acquired by the Louvre three years ago has given a firm basis for the contact of a civilisation which originated in Elam, and was in touch with the best period of the prehistoric age in Egypt. It shows that the east was far advanced before Egypt, and that the art of the slate palettes in Egypt originated from this Elamite school. This finally puts out of the question a purely indigenous development in Egypt, without foreign influence on the dynastic culture. There can be no question that the dynastic art was due to a fusion of an Oriental race with Egyptians. Another question to be reconsidered is the continuity of race in Egypt, on which Dr. King states that Dr. Elliot Smith "has demonstrated the lineal descent of the dynastic from the pre-dynastic Egyptians." Now, from a much larger body of material, it has been shown (in *Tarkhan II*) that there was a continually increasing effect of the dynastic people on the predynastic, that this culminated in the dynastic conquest, and that the mixed people gradually recovered the original climatic type subsequently. This accords with the artistic history shown by the ivory and slate carvings (*Ancient Egypt*, 1917, pp. 26-36). No one knows better than Dr. King how incessantly history is revised by fresh discovery, and we hope that his publisher will give him free scope in future reprints. W. M. F. P.

Africa, West: Philosophy.

Dennett.

My Yoruba Alphabet. By R. E. Dennett. Macmillan and Co., Ltd.,
St. Martin's Street, London. 1916. **63**

This book is not a treatise on Yoruba phonetics, and although it proposes (in the first three pages) a new method of writing Yoruba, by using double letters and prefixing hyphens to get rid of certain dotted vowels and consonants, it has little to do with Yoruba philology, and a great deal to do with Yoruba (or is it Mr. Dennett's?) philosophy.

It is written to direct "the thoughts of Yoruba teachers, students, and children into such channels as shall conduce to an accurate and intelligent appreciation of the philosophy in their truly beautiful language." In other words, the author proposes to unveil, analyse, and apply to the Yoruba language the Great Universal Order. This great universal order comprises the eight great elemental factors: 1, Authority; 2, Morality; 3, Potentiality; 4, Volition; 5, Vitalization; 6, Reciprocity; 7, Capacity; 8, Effectivity.

After a statement as to the religious and spiritual influence permeating the Yoruba people, shown by their devotion to religious performances and strivings for communion with Olorun, the great owner of the heavens and the Great Universal Spirit, the author suggests that as certain words in Yoruba differ only in accent and intonation as, e.g., *emi*, *mi* (I), *mi* (to breathe), *emi* (breath), *emmi* (life), *mi* (to agitate), "it is quite conceivable that in the minds of the early progenitors of the Yoruba race there may have prevailed the idea that all these elements were essential to the existence of a perfect being," i.e., the first person—*emi* or *mi* (I).

He then shows that the factors of the Great Universal Order enumerated are built up from the Yoruba vowel sounds, in the order of the Yoruba

personal pronouns, by means of the Yoruba consonants, in certain natural groups. Thus:—

Pronouns.		Consonants.	
1. Authority	- <i>i, emi</i> (I)	<i>c, f, f (v)</i> , Nature's aspirates.	
2. Morality	- <i>u</i> , or <i>o, iwwo</i> (Thou)	<i>l, m, n</i> , Liquids.	
3. Potentiality	- <i>o</i> , or <i>o, on</i> (He)	<i>sh, s</i> , or <i>z</i> , Sibilants.	
4. Volition	- <i>a, iwa</i> (Passion) } <i>a, iwa</i> (Being) }	<i>awa</i> (We)	<i>g, k, gb</i> , or <i>q</i> , Gutturals.
5. Vitalization	- <i>a, iwa</i> (Passion) } <i>a, iwa</i> (Being) }	<i>awa</i> (We)	<i>t, d, w</i> , Dentals.
6. Reciprocity	- <i>'e, ennyin</i> (You)	<i>y, h, j</i> , Exhaled aspirates.	
7. Capacity	- <i>a, awon</i> (They)	<i>b, r, p</i> , Labials.	
8. Effectivity	- (<i>ère</i>) the new I, <i>emi</i>	Becomes the head of a new generation.	

These headings elaborated with seriatim in their relation to the Yoruba vocabulary. Thus, *ile* (earth), *omi* (water), *mu* (to imbibe), *olokun* (the sea deity), *ina* (fire), *ma Nama Na* (lightning), the verb *nà* (to chasten or chastise) are said to show that "the liquids are expressive of and closely allied to *Morality*." The author then states that Genesis, the symbols found in the Yoruba sacred groves, and the Yoruba letters are analogous in their conformity with the Elemental Factors and Great Universal Order. The Lord's prayer also conforms, so does the English language. The book ends here, much to one's disappointment, for there surely must be some other things which agree with the Great Universal Order.

Mr. Dennett does not claim for the Yoruba any knowledge of this wonderful philosophy hidden in the alphabet of their language. It is, in fact, a white man's conception of what the black man may (or may not) think of the arrangement of the universe, and has no native authority. It may be relegated to the same category as Torrend's relation of the Bantu noun-classes to the seven days of creation as stated in the first chapter of Genesis. But Mr. Dennett's theory *se non è vero è ben trovato*, and will serve as an admirable example of what a plausible case may be made out for any theory whatever by ingenuity in the way of linguistic comparisons.

SIDNEY H. RAY.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL
INSTITUTE.

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(Donor indicated in parentheses.)

Burmese Textiles from the Shan and Kachin Districts. By Laura E. Start. Bankfield Museum Notes. Second series, No. 7. $10\frac{3}{4} \times 7\frac{1}{2}$. 51 pp. 40 Illustrations. F. King & Sons, Ltd., Halifax. 3s. 6d. (H. Ling Roth, Esq.)

Panjab Castes: Being a Reprint of the Chapter on the Races, Castes, and Tribes of the People in the Report on the Census of the Panjab published in 1883, by the late Sir Denzil Ibbetson, K.C.S.I. $10 \times 7\frac{1}{2}$. 338 pp. Superintendent, Government Printing, 1916. 6s. (Chief Secretary to Government.)

Ritual and Belief: Studies in the History of Religion. By E. S. Hartland, F.S.A. 9×6 . 345 pp. Williams and Norgate. 10s. 6d. net. (The Publishers.)

EYRE AND SPOTTISWOODE, LTD., His Majesty's Printers, East Harding Street, London, E.C.



FIG. 1.



FIG. 3.

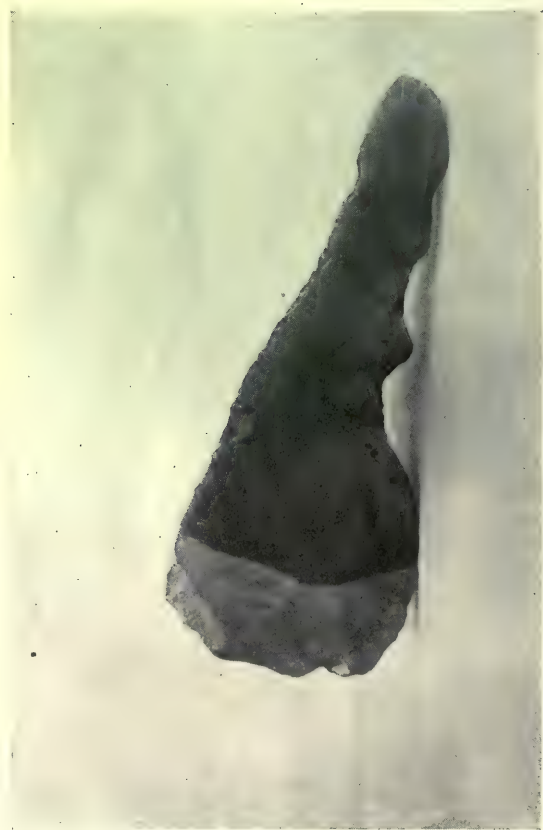


FIG. 2.



FIG. 4.

FLINT TOOLS FROM THE PLOUGHED FIELDS OF NORFOLK AND SUFFOLK.

ORIGINAL ARTICLES.

Archæology.

With Plate F.

Layard

Finger Grips: An Interpretation of Worked Hollows found on many Surface Flints.*By Nina F. Layard, F.I.S.***65**

Among the large number of flint tools gathered from the ploughed fields of Norfolk and Suffolk, collectors have puzzled over many eccentric forms, the purpose of which it is difficult to determine. Some of these, notwithstanding an apparent want of design, show careful secondary work, and it is the position in which this work occurs on the tools that has defied explanation. Perhaps the most striking instances are those which show a series of hollows placed one beside the other for the greater part of the length of the implement. These have all the appearance of hollow scrapers, and are worked out in the same way, but that this is not their true purpose, an examination of these interesting examples proves conclusively.

It was while handling one of these unusual forms, and vaguely wondering which was the working end of the tool (Fig. 5), that my hand accidentally fell into the position shown on Plate F, Fig. 1. The thumb rested on the flattened back of the



FIG. 5.

FIG. 6.

tool, and when the fingers were raised they were found to have fitted naturally into the grooves below, evidently prepared to receive them.

A further examination of the implement showed that the knife-like blade was carefully worked to an edge on either side. To prevent injury to the thumb the back of the tool had been beaten, thus removing the sharp edge (Fig. 5), while the sloping of the handle completed a design which resulted in an implement with a comfortable and powerful hand-grasp (Plate F, Fig. 1).

This cleverly contrived tool proved a key to the correct handling of many others. Looking over my collection a second example, equal in merit, soon came to light. This was a long-handled scraper, on the right side of which finger grips had been skilfully worked out (Fig. 6, and Plate F, Fig. 2). The implement is triangular in section, the dorsal ridge rising to a height of 22 mm. in the centre, thus affording a convenient grasp between thumb and fingers (Plate F, Fig. 3). The back is beaten to blunt the edge, and so avoid injury to the palm of the hand

(see Fig. 6), and where the fingers encircle the handle and return with their top joints resting on the left edge of the tool, the same careful battering of the sharp rim is found (Plate F, Fig. 2).

Another striking example of finger grips, accompanied by beautiful adaptation to the hand generally, is shown on Plate F, Fig. 4. Again the fingers fit perfectly into the hollows nicked out for them, while the butt of the tool is shaped to follow the lines of the half-closed hand. By one purposeful blow a large flake has been removed at the point where the tool rests against the ball of the thumb, while a groove has been formed to accommodate the tip of the thumb (Fig. 7).

Space will not allow of the introduction of more than one other specimen of the same kind. This is another tool similar in general design to the last, but also having lost its point. The working out of the hollows is exceptionally fine, as the thickness of the tool on the worked edge is not less than 7 mm., making the task of removing the flakes with perfect regularity extremely difficult. Both this and the last-mentioned implement were kindly added to my collection by Professor Barnes. The first was found on the Kent plateau, and the other came from



FIG. 7.—FLINT DIBBLER WITH HAND IN POSITION.

Croxley Gravel, Rickmansworth. In this short paper I have only dealt with one of the many and varied methods employed by the flint-worker to insure a secure hold on his tool without the aid of a handle. Other devices equally skilful, and indeed requiring even more ingenuity, are found in other types of which I have a considerable collection. An account of these I hope to publish shortly. NINA F. LAYARD.

DESCRIPTIONS OF PLATE AND ILLUSTRATIONS IN THE TEXT.

PLATE F.

- FIG. 1.—Flint hide-cutter with hand in position.
- FIG. 2.—Long-handled scraper (under surface showing hollows).
- FIG. 3.—Long-handled scraper, with fingers in the hollow and thumb in position.
- FIG. 4.—Flint dibbler from Kentish plateau, showing finger hollows.

ILLUSTRATIONS IN TEXT.

- FIG. 5.—Flint hide-cutter, showing finger hollows.
- FIG. 6.—Long-handled flint scraper, showing finger hollows.
- FIG. 7.—Flint dibbler, with hand in position.

Punjab.

Rose.

Muhammadan Betrothal Observances in the Punjab. By H. A. Rose.

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SECTION 3.—BETROTHAL AS AN USAGE AND AS A RITE.

In the Western Punjab Muhammadans tend to assimilate the betrothal to the regular *nikāh*, or wedding. This is especially the case in Hazāra. In that district some people celebrate the *mangewa* only at betrothal, others solemnise the *nikāh* simultaneously with it, but without fixing the amount of the dower. That appears to be fixed subsequently, and the *nikāh* is regarded as irrevocable when the amount of dower has been fixed. In Haripur tahsil, after the *duā-i-khair*, the ritual of offer and acceptance is solemnised at the betrothal. In Attock tahsil, too, a *mullāh* officiates at this ceremony.*

In the Rājanpur tahsil of Derā Ghāzī Khān the position is this : When persons of the same tribe make a betrothal by exchange, the *nikāh* is not performed at the betrothal, but the *mangnī* is performed, and the *duā-i-khair* is recited in connection therewith. But if a betrothal is made in consideration of a cash payment the *nikāh* is solemnised simultaneously with the *mangnī*. The amount paid varies from Rs. 100 to 300. But elsewhere it is rare to find betrothal regarded as a religious rite, though occasionally the *niyat khair*, or invocation of a blessing, is invoked by the Qāzī's reciting the *duā-i-fatih khair*, as in Ferozepur. In that district this is the only ceremony at a betrothal, the boy's father visiting the bride's and receiving a red *khes*, or *mutāhā*, after the *niyat khair*, while the boy does not accompany his party. In Mandī the following times are considered inauspicious for a betrothal, and in fixing the date for it a Qāzī is consulted :—

- (1) The first ten days of the month of Muharram.
- (2) The month between the Id-ul-Fitr and the Īd-ul-Zuhā.
- (3) The month of Jamādi-us-sānī.
- (4) The last day of every month.
- (5) The 3rd, 8th, 13th, and 18th of every month.

Auspicious days for a betrothal are :—

- (1) The 7th, 11th, 14th, 25th, and 27th of every month.
- (2) All days except the 3rd, 8th, 13th, and 18th.

But this custom appears to be confined to that State, for in the adjacent district of Hoshiārpur any date may be fixed for the betrothal, and at most a *maulavi* is called for the *niyat khair*. In Dasūya tahsil any date of the lunar month is fixed. This is called *parnā*, and on it a party of four at least visits the bride's house with presents, which vary according to the means of the parties. Among the Paṭhāns, called Wilāyatī and Muhammadans of Kāngra generally, betrothal is styled *bale*, or "assent." Among the Saddozai and Qizzilbāsh Paṭhāns of Hoshiārpur, for instance, the *bale* simply consists in a visit by the boy's friends to the girl's father and a formal acceptance of the proposed match. The boy himself does not take part in any of the ceremonies before his wedding, though these are rather elaborate, and include the *shirīnī khorī* (sweet-eating) and *rakht-burani* (cloth-cutting). At some date after the *bale* the boy's father, accompanied by some of his family, takes some sweetmeat, pieces of silk and rich cloth, unsewn and uncut, for the bride, but ornaments are not sent till the eve of the wedding. This ceremony is performed with some little *éclat*. The sweetmeat, which is always a mixture of *patāsha*, *nūgal*, and *ilaichidāna*, is arranged in trays carried by menials, who form a procession. Before them goes a band. The ladies of the boy's family follow in close carriages. Sometimes fireworks are also used. When this procession arrives at the girl's house the boy's mother or some elderly relative puts a ring on the bride's right-hand

* See Note A at end.

finger and says, "*bismillāh*" (by the name of God). She then throws a shawl round her shoulders. After this she cuts the cloth with scissors, repeating "*bismillāh*." Congratulations to both the parties follow, and sweetmeat is distributed among the women inside the house as well as among the men outside. Finally, the date of the wedding is decided upon and publicly announced.

In Kāngra the *bale* is a little more formal, and it is also followed by similar observances. The boy's father, with some respectable elders, goes to the girl's house on the 11th, 17th, 27th or 29th of the month. The girl's father also assembles some men at his house before their arrival, and soon after it he distributes sweetmeats, such as *patāshas*, giving a plateful of sugar with his own hands to the boy's father, and congratulations are exchanged. The giving of the sweetmeats shows that the girl's father has agreed to give his daughter to the boy. This ceremony is called *sharfī khorī*, and females take no part in it. On this day, and sometimes on the next day too, the boy's father sends sweetmeats and fresh fruit to the girl. This sweetmeat is called *majmā razā*. The fruit is distributed by the girl's parents among their relatives. Thereafter (till the date of betrothal) on each Īd-ul-Fitr the boy's parents send some *mehndī* and food to the girl, and a he-goat or ram is also sent to her on each Īd-ul-zuhā. The animal is painted with *mehndī* and a silver *hansli* put round its neck. It is sacrificed by the girl's parents. On each last Wednesday of the month of Safar, 20 silver rings and a gold ring, with a suit of clothes and some *mehndī*, are sent by the boy's parents to the girl's. The silver rings are meant for her friends and the gold one for the girl herself. On the Shab Barāt fireworks are also sent for the girl. These practices are kept up till the nikah, and there is no limit to the period intervening between the betrothal and the wedding.

The date of the *nikāh* is fixed in consultation. First of all the date of the *rakhat bari*, or cutting of the clothes, is settled. The boy's parents take even suits of silk clothes to the girl's house. These clothes are carried by servants on their heads. A pair of laced shoes is also taken. The first cloth for the bride is cut by the oldest and most respected matron of the family. The girl's parents supply the boy's with food for the night at the *rakhat bari*, and the men of his party depart after taking it. This ceremony is performed ten or eleven days before the wedding.

The auspicious dates for a betrothal are variously given. In the Abbottābād tahsil of Hazāra very few days are unlucky, and auspicious dates are the 1st, 2nd, 4th, 5th, 6th, 7th, 9th, 10th, 11th, 12th, 14th, 15th, 16th, 17th, 19th, 20th, 21st, 22nd, 24th to 27th, 29th, and 30th. But one list from Rājanpur, in Dera Ghazi Khan, omits the 2nd, 6th, 8th, 9th, 10th, 15th, 16th, 19th, 20th, 22nd, 25th, 26th, and 30th, while in the Leiāh tahsil, of Mīānwālī, only the 7th, 11th, 14th, 24th, 25th, or 27th day of the moon is considered really prosperous, though, excepting the ten days of Ashura, all other days of the year are admissible, whether lucky or not, for performing *mangnā*.

In Ferozepur no regard is paid to the date of the month, but the boy's party should reach the girl's house on a Thursday night.

In Lohāru the usages in betrothal are typical of those in vogue in the south-east Panjab. In that State, betrothal (*sagāi*) is never solemnised on the 3rd, 13th, 23rd, 8th, 18th, or 28th of a lunar month.

The bridegroom (*bendhā*) only accompanies his father and kinsmen to the house of the bride (*bendhānī*) if specially desired to do so by the bride's father. The boy's father then presents Rs. 35 in cash and a cocoanut in a vessel, together with $5\frac{1}{4}$ *sers* of sugar, one *ser* of henna, and a silk cloth, which are put in the bride's lap—an observance called *god bharnā* (literally, "to fill the lap"). Then the girl's father gives the boy some cloth, a rupee, and a cocoanut, with clothes for himself

and his mother. Next follows the *shukarāna*, or thank-offering, a feast of rice, coarse sugar, and *ghi*, given to the boy's party, during which the girl's kinswomen fling insults (*sithniān*) at them.

The betrothal ceremonies in vogue among the Muhammadans of the Lamma tract in Bahāwalpur are described below :—

Betrothal is called *mangnān* or *mangewa*. On the date fixed for the betrothal the *putreta* or boy's father's party pay a visit to the *dheta* or girl's father, and this visit must be paid at night and on the 1st, 5th, 7th, 11th, 14th, 17th, 19th, 21st, 25th, 27th, or 29th of the lunar month. The bridegroom accompanies the party, which takes a quantity of *tapāsās* (sugar cakes) with them, and on arriving at the girl's house the *duā-i-fātiha khair* or *niyat-khair* is observed, the ceremony being begun by the person who arranged the betrothal. After this the parties exchange congratulations and the bridegroom is given a *lungi*. The boy's father usually distributes the *tapāsās*, while the bride's father entertains them with milk. The bridegroom's party returns home the same night. Subsequently a party of women visit the girl's father on behalf of the bridegroom's father, taking with them *tapāsās* and a *trewar*, comprising a *bochhan*, in which are tied some coins (varying from 4 annas to Rs. 25), fruit weighing from $2\frac{1}{2}$ *pāos** to 5 sers, a bracelet, a set of bangles and a ring (or *pathi-mundri*), and these ornaments and clothes are put on the bride by the women.

In well-to-do families a woman who makes bangles accompanies the party to the bride's house and puts glass or ivory bangles on her. In other cases the bride is taken next day to a shop and the bangles are bought and put on there. After this the nose of the bride is bored, and as a compensation for the pain she is given $1\frac{1}{4}$ *chhataks* or $1\frac{1}{4}$ *pāos* of sugar-candy.† Finally the visitors are feasted with *choba* (rice or bread with *ghi* and sugar) by the bride's father, but nothing that has been cut with a knife, such as meat, is given them.‡ This ceremony is termed *nath-sūrā*.

SECTION 4.—USAGES SUBSEQUENT TO BETROTHAL AND PRIOR TO MARRIAGE.

Chandrānān.—On the first day on which the new moon is seen in the lunar month following the betrothal the bridegroom visits his father-in-law in order to congratulate him on the new moon, and takes his meals in his house. This is termed *chandrānān khāwan*. The bridegroom drops from Re. 1 to Rs. 10, according to his means, in the plate in which food is given him, and his father-in-law in return gives him a ring. This usage is virtually confined to Bahāwalpur, being expressly non-existent or obsolete in almost every other part of the Punjab.

After the *chandrānān* on both the *Īds*, on the *Ashūra* (the 10th of Muharram), the *Shab-barāt*, and the last Wednesday in *Safar*§ the boy's father sends uncooked food (rice, *ghi*, sugar, &c.) to the bride. Here again nothing that has been cut may be sent, and this rule is observed even on the *Baqr-Īd* day (the festival on which sheep, &c., are sacrificed).

But in *Derā Ghāzī Khān* only a rupee is sent to the bride on the first *Īd*. No uncooked food is sent her on the *Bakar Īd*, when her home is not far from the boy's.

In *Miānwālī*, on the first *Īd-ul-Fitr*, after the *mangewā* the boy's father sends the bride a *bhochhan* and a silk *kurtā*, some rice, *ghi*, sugar, &c. Beside these

* A *pāo* = $\frac{1}{4}$ of a *ser*.

† Round Mithankot, in *Dera Ghāzī Khān*, the bride's nose is bored by the boy's kinswomen, and they give her the sugar-candy, the one who actually performs the operation giving twice as much as the others.

‡ Round Mithankot this restriction is only imposed on the bride.

§ In the *Jāmpur tahsil* of *Derā Ghāzī Khān* uncooked food is sent on the *Īds*, *Muharram* days, and *Shab Barāt*, by the boy's party, but not on the last Wednesday of the month of *Safar*.

articles and clothes are sent on each Īd or festival after the *mangewā*. This is termed *warenā* or *sanbhāl bhejnā*, to send a support or pledge.*

After the betrothal various social observances take place, but however costly they may be, few have any religious or ritual significance. For example, among the Jadūns and in the Abbottabad tahsil of Hazāra uncooked food is sent to the girl on each Īd and Shab Barāt after the betrothal. This usage is very wide-spread, but the customs as to what is sent vary considerably. Thus, in Peshāwar, well-to-do people send clothes and ornaments.

In Gujranwālā on the Īd day after the *mangnī* the boy's party goes to the girl's house with ornaments and clothes, which are put on the girl on that auspicious day. Even poor people take a suit of clothes and silver ornaments worth Rs. 20 to 50, while the rich send silk clothes and ornaments costing as much as Rs. 500 to 2,000. Congratulations are exchanged between the parties, and sweets distributed on this occasion. This custom is, however, not in vogue among cultivators. It is confined to the higher castes living in towns.†

Kawārā kā sāwanā.—In Hoshiārpur the presents thus sent are called Īdī and Shab-barāti. In Mandī on any festival day, such as the Īd or Niāz, and at any marriage in the girl's family after his betrothal, the boy is invited and feasted with rich food. This is called *kawār ka sāwanā*. On the other hand, among respectable families, the girl is supplied with clothes, etc., till her *nikāh*.

A similar custom exists in Lohāru. In that State *bidri* is a present of sweets, etc. (including clothes, if they can be afforded), sent to the girl by the boy's father in every festival between the betrothal and the wedding. If no ornaments or clothes were given to the girl on the day of the *mangnī* they are sent with the first *bidri*. In return the girl's parents also send a *bidri* to the boy. If the Tīj festival of the Hindus in Lāma happens to fall between the betrothal and the wedding Muhammadans send *sandhārī* to the bride. This consists of *khajārs* (sweets shaped like dates), made of wheat flour and coarse sugar fried in oil, together with a suit of clothes for the girl.

In the Pindī Gheb tahsil, on the day after the betrothal, the females, on behalf of the boy's father, visit the girl's house, taking with them dried dates, *mauli* thread, and cash for her. This is called *gad*. The boy also visits the girl's house on the second or third day, his mother-in-law gives him a gold or silver finger-ring or some cash. The girl's other relations also give him money.

In Peshāwar city, at an undefined time after the *mangewā*, some of the boy's kinswomen go to the bride's house for the *milnī*, as it is called. They take sweetmeats with them, and the bride's parents serve them with boiled rice and sugar, called *chobbā*. This ceremony is performed during the day, and the women return home by night. They drop from Re. 1 to Rs. 5 into the vessel from which they are given the rice. At every festival day the boy's parents also send the girl rice and sugar, and in return for this they are given a *chādar* or *dopattā*.

But in Siālkot the *milnī* is not carried out by the womenfolk at all. In that district some time after the betrothal and before the wedding, the fathers of the boy

* See Note B at end.

† This usage is subject, of course, to endless variations, not only in different localities, but also in different castes. Thus in Ferozepur, after the *mangnān*, food, clothes, and ornaments are sent to the bride on the Īd. Among Bodlās the boy's mother goes with these articles herself. The ornaments are a *hansli*, bangles, a *gokhrū* (all of silver), and clothes—a gown and a *kurtā*. Sayyids send 5 *seers* of rice, a rupee, for the price of *ghi*, sugar, shoes, trousers, a laced *kurtā*, and *dopattā*, bangles, and *karyān*. Rājputs send all the above except the rice, and in return the bride's father sends a *lungī*, *kurtā*, turban, shoes, and a finger ring for the boy on the last Wednesday. Among Arains the boy's father sends two *seers* of rice and one of sugar. Half of this is sent by the bride's father in return.

and the girl meet together, and this is called *milnī*. The boy's father on this occasion sends the girl some ornaments and clothes, which are put on her. In return her father may give the boy's father valuable clothes and ornaments as well as a she-buffalo or a mare, but this is not generally done.

In Hazāra the *milnī* appears to be called *pair gela*. Directly after the betrothal, on the return of the boy's party from the girl's house, his kinswomen, with other females of the village, visit the girl's mother, taking with them drums and singing songs on their way. They also take sweetened bread fried in oil. This is called *pair gela*. The bride's kinswomen return the visit in a similar way. By this it is intended that if a birth or death takes place in either of the two families their womenfolk can take part in the marriage festivities or the mourning rites.

The meaning of the term *pair gela* is not very clear. In Attock tahsīl it is thus described : After the conclusion of the betrothal, on an Īd day, the boy's mother, together with thirty or forty other females, the boy, and his *sarbālās*, visit the girl's mother by day. She takes with her clothes, sweetmeats, and parched grain, and presents them to the girl's mother, who distributes them among those present and dismisses her female visitors with presents of clothes, but the boy and his *sarbālās* stay on for four or five days. On his departure his father-in-law to-be gives him clothes and a ring. Sometimes the *sarbālās* are also given clothes. This is called *pair gela*. On the first Īd the boy's mother also takes mehndi, jaggery, rice, and clothes for the girl, and this is repeated on all subsequent Īds.

But in the Haripur tahsīl of this district it is said that on the third day, or some time afterwards, the females of the boy's family pay a visit by way of *pair gela* to the girl's mother, taking with them ornaments, &c. On their return the girl's parents give them clothes, &c.

In Mīānwālī a similar usage is called *pairā chhornā*. After the betrothal the boy goes to his father-in-law's house, and after taking food there, he drops from Re. 1 to Rs. 5 into the dish in which his dinner was served. His mother-in-law to-be then gives him a gold or silver ring in return.

NOTES.

A.—Among the Pathāns of Hoshiārpur the betrothal has something of a ritual character. It is fixed for any lunar date. A *maulavi* attends it and the *niyat-i-khair* is observed twice, once when the girl's father solemnly declares that he has given his daughter in marriage in the name of the Almighty, and once again after it, when congratulations are exchanged. The bride's father, however, gives the boy's some dried dates and sugar "by way of *shagun*," and thus the contract becomes irrevocable. This is followed by the *nishānī*, also fixed on a lunar date. The boy's party with their *kamīns*, some presents, including clothes and cash varying from Rs. 11 to 21, for the bride, visit her father. Drums are beaten to add to the *éclat* of the observance. The gifts to be made are not fixed, but the *nishānī* is followed by the interchange of money and other gifts. The bride is in *māyān* for fifteen or as many as forty days. The wedding party starts so as to reach the bride's house at or a little after the *zuhr* prayer. It takes with it a *satpura* or basket containing seven things, such as a comb, scented oil, etc., besides ornaments, clothes, and other gifts. These gifts are called *wari* or *bari*. The *milnī* is observed in much the usual way. After it the wedding goes to the house prepared for its reception, but a *kamīn* stands in the way to exact his *lāg* (called *pahlā* or "first") of a rupee. Then the barber brings them water to wash their hands and the boy's father puts Rs. 7 to 21 in the basin. This exaction is called *dūd* (? second). When they begin to eat a *thāl* or *katorā* is set before the boy, and in it he puts three handfuls of rice, etc., which are given to the bride to eat. Thus the *nikāh* is duly solemnised and the bride

taken away, but she returns to her parents on the third day. Finally a day is fixed for the *bashārtā*, when the husband's kinsmen bring her back to his home.

The trend of custom to make betrothal a marriage or as binding as a marriage finds an interesting and instructive parallel in the old doctrine of espousals in English law. An espousal, properly speaking, was a promise of marriage which was to take place at some future time, the man saying to the woman, "I *will* take you for my wife." Espousal was either simple as made by a mere promise, or it could be ratified by a pledge, such as a ring. To make it good proof of consent was required, but the mere gift of a ring was not sufficient unless it was expressed to be given by way of espousal. Any person over seven was competent to espouse and even if under that age the espousal held good provided it were ratified later by a regular consent. Further, a third party could act in this capacity, as a father for his son, a mother for her daughter, an uncle for a nephew, and a tutor for his pupil, but such espousals by proxy had no legal effect unless the party affected, on arriving at the age of puberty, signified his or her consent to the contract. This "option of puberty" thus differed somewhat from the rule in Muhammadan law inasmuch as the contract was regarded as only made by a proxy and not by a guardian, and had to be ratified at puberty. Apparently it did not hold good unless expressly ratified and the parties had not merely the option of repudiating it.

When one was espoused to another a day was fixed for the wedding unless the espousal was conditional on some event which might never take place, and in that case the espousal had no effect. But if it did take place and in all cases of unconditional espousal neither party could make a fresh contract. Either party had a right to sue to compel the other to celebrate the marriage, and though the spiritual courts as a rule would not force marriage upon an unwilling party, they inflicted penance on the one which refused to carry out the contract. Cohabitation after espousals made the parties man and wife without any wedding. But if a party made a second contract of espousal and cohabited with the other party to the second contract the first did not hold good. Espousals created spiritual kinship with all its attendant prohibitions on marriage within certain degrees. And "present espousals" operated as a marriage. But espousals might be dissolved by mutual consent or by the court, by one party's entering into a religious life, by fornication, heresy, lapse of time (three years if no day were specified), or by letting the day fixed go by, by failure of a condition, by deformity or a contagious disorder, by a deadly feud springing up between the parties or even by asperity of manners. The evils which such a law naturally fostered were tolerated for several centuries until the passing of Lord Hardwicke's Act in 1753 abolished espousals and clandestine marriages.*

B.—The term *marenā* clearly means a "pledge" or "ratification," and it is translated by *santhat tlejnā*, which must mean "to send a support or pledge." Elsewhere a rite called *warnā*, lit. "to marry," is in vogue. Thus after a betrothal in Gujrānwālā, if desired by the girl's parents, the boy's party goes to them with a *kurtā dopaṭṭā*, trousers, shoes, silver *karyān*, bangles, *kangan* and 101 *laḍḍūs*. On arrival they are treated in the same manner as at the *maṅgnī* and served with the same food. The ornaments and the clothes are put on the bride, a rupee or two and some *tapāshās* being also given her. The *laḍḍūs* are distributed by the girl's father among his near kin. The *lāgis* of both parties also get their dues as at the betrothal. Each female, too, is given a *kurtā* and *dopaṭṭā* and each male a *lungī* and a turban. This is called *warnā*. But this usage is not general as it depends on the pecuniary position of the parties.

* A. R. Cleveland, *Woman under the English Law*, pp. 123-9 and 218.

This ceremony is also performed by some tribes in Jullundur after the *mangni*. The men of the boy's party visit the girl's father, taking with them ornaments (*chaunk*, *phul*, *hansli* and *jhānjharān*) and sometimes clothes as well. The bridegroom does not accompany them. A cordial reception is given them by the girl's party, and when they depart they are given a gold ring and some clothes for the boy. This is called *warnā charhānā*.* This ceremony is dying out among the educated classes. In addition the boy's parents send uncooked food such as rice, jaggery, *mehndi*, *mauli*, and sometimes a suit of clothes as well as some cash on each and every festival day.

In Gurdāspur the *warnā* is performed five or six months after the *kurmai*. The boy's mother and other females go to the bride and dress her in trousers.

H. A. ROSE.

Sudan.

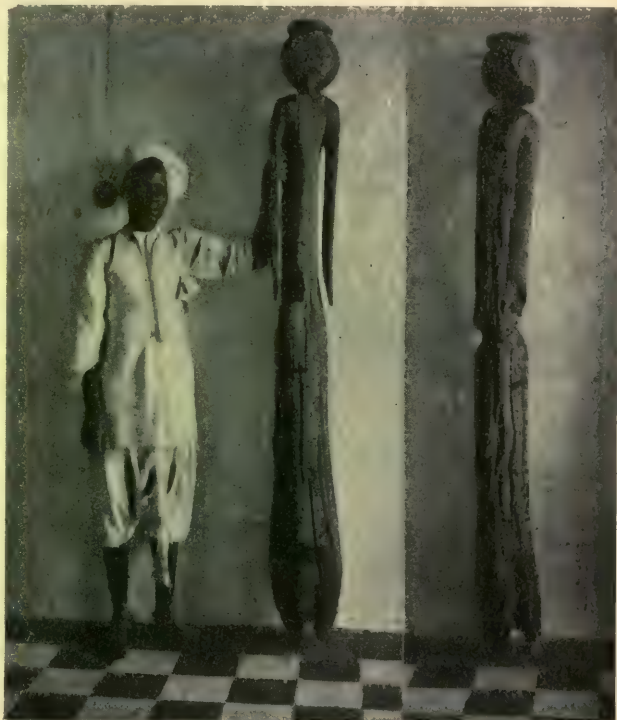
A Bongo Funerary Figure. By C. G. Seligman, M.D.

Seligman.

67

The carved wooden figure here illustrated is now in the museum of the Gordon College, Khartum. It was taken from the grave of a Bongo chief who was said to have died prior to the Dervish invasion of the Bahr el Ghazal under Kheirmallah. The natives professed to have forgotten the name of the chief, but he was said to have been the head "sheikh" of the tribe. The figure, which is made from the wood of the tree called *abu serag*, is said to have been found leaning against a tree on the El Ateesh road from Wau to Tamboras, some twelve miles south of Fort Ukanda.

Previous to the discovery of the figure the donor, whose identity is unfortunately doubtful, came across some freshly-made graves in a mixed Bongo-Bolando (? Bongo-Belanda) village, close to Rafili. These graves were circular and surrounded by a number of stout posts driven into the ground, some 3 feet 6 inches to 4 feet being left protruding from the ground, while the central space between the posts had been filled up with broken stones. The graves were similarly constructed for both sexes, but at the eastern part of the circle surrounding a man's grave a post, roughly carved to represent a man, was erected, and on the base of this post were a number of horizontal notches, said to be the tally of the elephant,



CARVED FUNERARY FIGURE IN THE MUSEUM OF GORDON COLLEGE, KHARTUM.

* No such substantive as *warnā* is given in the *Panjabi Dictionary*.

buffalo, leopard, lion, hippopotamus, and crocodile the deceased had slain; but it was not discovered whether these notches were arranged in any particular sequence as regards species of animals or not. One old man in this village, formerly a "chief," was having his tomb figure prepared in anticipation of his death. The women's graves had no carved figures, but a clay cooking-pot had been placed on the top of the heap of stones. It is recorded that males were buried in a recumbent position on the right side, the head resting on the right hand, the knees drawn up, with the face towards the east; women, on the other hand, were buried facing the west.

The total height of the post here illustrated is 82 inches, the carved portion measuring 38 inches. This is about the size of the figures round a Bongo grave illustrated by Schweinfurth (*Artes Africanæ*, Plate VIII), and exceeds that of a Bongo funerary effigy of a woman (about 27 inches in height), also figured by Schweinfurth. The four Bari *Ahnenfiguren* in the Vienna Museum are also considerably smaller than the specimen here figured.

C. G. SELIGMAN.

Ethnography.

Routledge.

The Northern Bantu. By Scoresby Routledge.

68

In MAN, 1917, 35, your reviewer writes as follows:—"Like the Kikuyu, "the Bagesu do not bury the dead." Speaking from knowledge acquired by long and intimate residence amongst this people, I would point out that the people of KIKUYU speak of themselves as AKIKUYU.

Though the Akikuyu in most cases do not bury their dead, still, amongst them, burial is the meed of the wealthy, and of the respected. Custom decrees who shall, who shall not, be buried. So, too, it lays down correct ceremonial, and practical procedure.

The burial of children, and the digging up of bones, as quoted by your reviewer, is entirely opposed to all I saw and heard in Kikuyu. The mere idea would be repugnant.

SCORESBY ROUTLEDGE.

Music.

Thomas.

Tone and Melody. By N. W. Thomas.

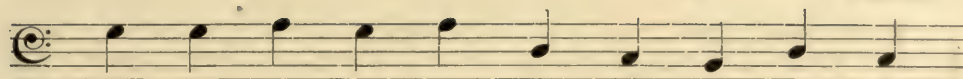
69

In 1911 I recorded with the help of Father Strub, of the Roman Catholic Mission, Agenebode, Southern Nigeria, six Yoruba and three Kukuruku songs, as nearly as they can be represented by our notation, and also the normal rise and fall of the tones in the spoken words. In a few cases, notably *eba* in the last line, the tones were accidentally omitted in my notes, and as I understood no Yoruba at the time, some of the words and much of the translation are uncertain. As, however, this note is intended as a contribution to the question of the relation of tone to melody, on which there are, so far as I know, no other data, I have not attempted to revise them. In the eighth song I am uncertain whether the low tone on *me* is the singer's normal low tone or a specially deep one, as I had not at the time realised that the intermediate tones between high and low were so numerous.

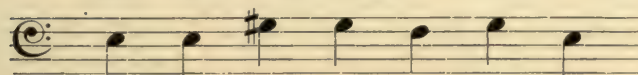
From the comparison of melody and tone it is clear that in the examples recorded there is often hardly any connection between them, though the last four notes of No. 8 show the required tone fall, of course, much reduced; the close of No. 5, and five out of seven notes in No. 2, also agree; in No. 1 the rise and fall in individual words is shown, but not the sentence melody.

The small numbers above the vowels show the tones—1 is high, 4 low.

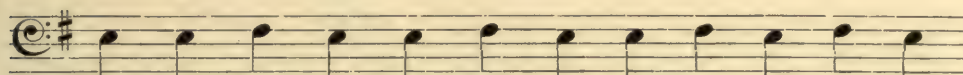
YORUBA.



1. ¹ ³ ² ³ ⁴ ³ ⁴ ² ³ ⁴
Small boy eases himself behind house; they say hide it



2. ² ² ² ² ² ³ ³ ² ⁴
No one kills anyone to iroko.



3. ² ³ ² ⁴ ² ² ³ ² ³ ² ³ ⁴
When father yon sends you O, nise do not refuse



4. ³ ² ² ² ³ ³ ³ ³
House is ready, let us go.

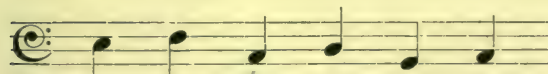


5. ³ ³ ⁴ ⁴ ³ ³ ³ ³ ³ ² ⁴
He met father our bure; he obe tu lona



6. ³ ³ ¹ ³ ¹ ² ² ² ²⁻¹ ² ¹ ² ¹
Woman 'paiye eyoma kebegu at night

KUKURUKU.



7. ¹ ¹ ³ ⁴ ⁴ ² ²
'bao de aja (u)we.



8. ¹ ⁴ ² ¹ ⁴ ⁵ ¹ ³ ⁴ ² ¹ ⁴ ⁴ ⁵
Master nilo me o, agene, n o g'(e) úko fo me o



9. ¹ ⁴ ¹ ⁴ ⁴ ¹ ⁴
I will show him how they play, play.

N. W. THOMAS.

REVIEWS.

Ethnography.

Cochrane.

The Shans. By W. W. Cochrane. Vol. I. Rangoon: Superintendent, **70**
Government Printing, Burma, 1915. Pp. xx + 228.

This is the first of two volumes, and it deals with the Shans mainly from the points of view of their history, language, and religion, leaving other matters to be discussed in the volume that is to follow. The work was written at the instance of the Lieutenant-Governor of Burma, and forms part of a series of books on the various races of the Indian Empire. The author is an American missionary, who has lived and worked for many years among the people he describes, and is thoroughly familiar with their customs, language, and literature.

The Shans of the Burmese Shan States are a branch of the great Tai family, and for that reason the author has deemed it necessary—as no doubt it was—to say a good deal about the Tai family as a whole, particularly as regards its origin and antecedents. He has endeavoured, with some success, to unravel the somewhat tangled skein of Tai history; and if there is much that inevitably remains doubtful and obscure, at any rate he has made it plain that the earliest traceable habitat of that people was in Southern and Central China, from whence they spread in various migrations into different portions of the Indo-Chinese peninsula. It would seem that in Southern China a very considerable part of the whole population to this day is either Tai or a mixture of Tai and Chinese. The two races have apparently become blended, and much that passes for purely Chinese is really Tai, or, at least, mongrel.

Of course, it is no easy task to apportion how much of the elements in blends of this sort is due to each set of ancestors. Anthropologically, the Chinese and the Tai are not very far apart. Linguistically, the two have much in common, and one cannot say offhand whether this is due to borrowing (either mutual or unilateral), or whether the two linguistic stocks descend from a common source. The prevailing view is that both factors have been at work, and that appears also to be Mr. Cochrane's opinion. But it must be confessed that his chapter on language is, on the whole, the least satisfactory part of the book. He compares lists of words in Shan, Karen, Palaung, and Burmese, and arrives at a similar conclusion as regards the ultimate relationship of all these very different languages and the families which they severally represent. His method, however, is neither scientific nor convincing. The mere comparison of individual words in different languages is incapable of leading to any positive results, and in the case of languages that are practically monosyllabic, its dangers are manifestly greater than they would otherwise be.

For example, it is by no means "certain" that the words for "head" (*ho*, *klo*, *king*, and *u-k'awng*) are "the same word right through." They may, or they may not, be the same, and the business of the scientific student of language is to show either that they must or that they cannot be. That can only be done, alternatively, by establishing the phonetic laws which underlie such alleged correspondences, or by disproving the existence of such laws. If in a considerable number of cases a Shan *h-* corresponds with a Burmese *k'-* and a Karen *kl-*, there may be a basis for the formulation of such a law, provided always that some adequate account is given of apparent exceptions. But no attempt has been made to do anything of the kind. A comparison between Shan and the other Tai languages would have been a more satisfactory, if less ambitious, undertaking, and would have fitted better into the scope of the work. We are a long way yet from these wider syntheses.

Incidentally I would point out that as Palaung has elsewhere been shown to go with the Mon-Khmer family, whose morphological system is quite distinctive and totally different from the Tai and Burmese, any superficial similarity in Palaung is

probably due to Shan loanwords and to the general influence of the mainly Shan environment in which the Palaungs live.

The chapters on religion (including myths and superstitions) are extremely interesting and written in a very sympathetic spirit. Mr. Cochrane deals more with the actual than the theoretical religion of the Shans, and while his account is critical it is also appreciative and fair. To the moot question whether the Shans formerly followed a Mahayanist type of Buddhism, he contributes no very new or decisive data. *A priori* it is probable that they did, but definite evidence is lacking. So far as the conclusion depends on the existence in Burmese of Sanskrit technical terms of Buddhism supposed to have been introduced from Chinese by the intermediary of Shan missionaries, it rests on a very shaky foundation. For these words do *not* show the influence of Chinese phonetics, and it is merely begging the question to assert that they must have come by way of China rather than by a more direct route. As for the non-Aryan words of the same category, who shall say at present whether they are really Chinese loanwords or part of the original common stock, if there was one? In this connection I would also enter a caveat against the use of the term "Northern," for Mahayanist, Buddhism. It is apt to mislead by implication. In India various Buddhist sects existed concurrently in many different parts of the country, and in Indo-China the Cambojans of the far South were formerly Mahayanists.

Mr. Cochrane has a lively sense of humour to which he sometimes gives rather a free rein, but at any rate it saves him from the danger of being dull, and if his occasional quips and colloquialisms shock the sedate student (as perchance they may), the general reader will probably be rather glad of a little comic relief thrown into the midst of a serious dissertation.

A few particular points, not always the author's own, but at any rate cited by him as more or less authoritative, seem to call for individual criticism:—Page xvi (note): The suggested connection of "Tai" with the Cantonese word *tai* seems to overlook the fact that the former is literally spelt *dai*. Page 12 (note): Camboja and Champa (not "Chamba" as there) are not identical, and neither has anything to do with "Shan." Page 42 (note): The Nicobarese are not Negritos, and all their dialects (not that of Car only) are related to Mon-Khmer. Page 45: The derivation of "Khmer" from a Shan expression is most unlikely, seeing that it is the name which the Cambojan people have applied to themselves from very early times. *Ibid.* and page 109: They should therefore be so styled, and not called "Mons of Cambodia," for there were never any Mons in that country, except possibly a few immigrants from Lower Burma or Siam. (I notice that the author calls even the Palaungs "Mons," just as he calls any Tai race "Shans," but I venture to think that such loose extension of ethnical names is to be deprecated; we should not call the Italians "French" for example.) Page 99: "Mon-Aryan" is a misprint (in Forbes's work) for "Non-Aryan," and might well have been corrected. Page 100: There is really no particular point in saying that Shan has "no proper passive voice"; obviously none of the uninflected, non-agglutinative languages can have voice (or for the matter of that mood, tense, number, or person) in their verbs in the way that (say) Latin or Greek has, but that is only a formal matter, for they are quite capable of expressing a passive *sense*, e.g., Mr. Cochrane himself says that for "I have been beaten" Shan would say "I suffered beating." His comment, that "there is nothing passive in that, except perhaps passive resistance," is amazing. What, after all, does "passive" mean except, in literal terms, "suffering," just as "active" means "doing"? Can anyone conceive a more essentially perfect expression of the passive than this Shan formula? Page 104, *seq.*: Like other Indo-Chinese alphabets the Siamese alphabet is of the Southern Indian type (though

deliberately modified from it; the distinction Mr. Cochrane here and elsewhere seems to make between "Sanskrit" and "Pâli" alphabets is based on a misconception, for both languages have been written in Indian alphabets of various types (and both often in the same type), the true, but merely negative, distinction between them being that Pâli has no use for some few letters which Sanskrit requires. The early history of the Shan alphabet can only be ascertained (if at all) by detailed palæographical comparisons for which the materials do not appear to be available at present, at any rate in Europe. It would, however, be interesting to know how the MS. referred to on page 108 as "earlier than A.D. 1300" is proved to be an original, for the date strikes one as extremely early for a palm-leaf MS. in Indo-China, where climatic conditions are by no means favourable to the preservation of that material. Pages 105-6: The references to and quotations from various (and mostly rather obsolete) authorities on Khmer antiquities and their supposed dates seem somewhat uncalled for. These writers contradict one another, and the dates they give are mutually inconsistent and quite hypothetical. Why are not the more recent and reliable French authorities cited, if the subject (which is really not very relevant) was to be introduced at all? Page 136 (note): There are some curious misprints here, *vous* for *voûs*, *ovora* for *obœia*, and *Calvanism* for *Calvinism*. Page 178 (note): As to the position of married women in Shan religious literature, it is to be borne in mind that that literature was borrowed wholesale from India, where there was a strictly patriarchal system, in which the position of women was necessarily a subordinate one. It is, however, notorious that the actual status of Burmese women is one of much greater independence, though the Burmese religious literature also came from India; and what we should like to know is not so much what the position of women is in the Shan books, but what it is in real life. Perhaps Volume II will tell us that, and many other things as well.

C. O. BLAGDEN.

Anthropology.

Jones.

✓ *Arboreal Man.* By F. Wood Jones. London: Edward Arnold. 1916. Price 8s. 6d.

71

In using this review the reader is asked to bear in mind that the reviewer is, and has long been, as convinced of the pronograde ancestry of Man as Professor Wood Jones is of his arboreal descent. This admission at the outset will probably prevent misunderstanding.

In the first place, we are greatly indebted to Professor Wood Jones for the masterly way in which he has crystallised the arguments for his point of view, and has focussed attention on a subject of which many of us have thought only loosely, if at all.

On reading his book, however, I have been impressed more and more with the opinion that it is the address of a clever counsel for the prosecution, and not the summing up of a just judge. I find no weighing of evidence in favour of a pronograde ancestry, and if I had not had the opportunity of dissecting many of the animals which he has examined, I should have closed the book, in all probability, with the firm conviction that the case was proved and the defendant condemned.

It remains, in all fairness, to hear the counsel for the defence before the verdict is reached, and this defence, I think, would need as much space as that part of the present work which deals with the arboreal ancestry of Man, since much of the book consists of very interesting, though, for the point at issue, irrelevant details.

I cannot, of course, attempt, in the space at a reviewer's disposal, to set out all the arguments for the other side, but I should like to show that there are points,

of which I will not suggest Professor Wood Jones is ignorant, but which, like a good pleader, he has left for someone else to use.

Let us take a point from the skeleton of the fore limb. In the pronograde mammals the radius becomes the important bone of the forearm; its head widens and stretches across the greater part of the lower articular end of the humerus, so that the trochlear surface for the ulna is quite inconsiderable. In orthograde and brachiating mammals, however, the radial head is disc-shaped, and only articulates with the capitellum of the humerus; but when we look at the developing bones of Man we find that the epiphysis for the capitellum still stretches across and forms quite half of the trochlear surface for the ulna. Is not this a persistence in the young condition of a pronograde stage in which the radial surface of the humerus was much larger and more important than it is in the orthograde or brachiating adult?

Then in the joints there is a vestigial fold in Man's shoulder, known as the middle glenohumeral ligament. This corresponds exactly in position with a strong ligament of great use in pronograde mammals for supporting the weight of the body by limiting extension of the shoulder joint. It is of no use in Man, but its remnants are there.

In the muscles Professor Wood Jones has ignored all but one special group, the pronators and supinators of the forearm and the serratus magnus muscle, but he has not recognised that this latter muscle is a special adaptation to the pronograde position, acting on each side as the chains of a suspension bridge, which sling the front part of the trunk on to the pillars of the scapulæ as soon as the support of the coracoid bone is removed. This muscle is very small in amphibians and reptiles but extends its attachments from the neck to the hinder ribs in pronograde mammals. It is partly disappearing in Man, it is true, since its use as a sling is no longer needed, but its neck part still persists as a separate muscle—the levator anguli scapulæ.

In the diagram which is given of the serratus magnus of the horse on p. 135, the neck portion of the muscle is omitted, yet no one who has dissected a horse or any other pronograde mammal could deny that it is there.

Again, the three condylar heads of the flexor profundus mass of the forearm constantly reappear as atavistic variations in Man, and are only to be found in their full development in such generalised pronograde types as *Erinaceus* and *Gymnura* among the Insectivora.

These are only a few instances of many which, in my opinion, can alone be explained by regarding Man as continually harking back to a pronograde condition, and no fair discussion of Man's ancestry can afford to pass over in silence the atavistic variations which are so constantly reminding us that his ancestors once used their fore limbs for support rather than for prehension. I think that Professor Wood Jones's position is diagrammatically put before us on page 55 of his book, where he compares the skeleton of the fore with that of the hind limb. To a lay reader nothing could be plainer than the similarity between the two limbs as they are drawn; but if the patella, with its big extensor muscles, had been contrasted with the olecranon and its extensor muscles, even the lay reader would have seen that the similarity between the two limbs was far from complete. Professor Wood Jones solves the difficulty by omitting the patella altogether from his diagram.

I do not hint that Professor Wood Jones is ignorant of these facts, and many others like them, or that he could not meet and explain them if he would. I only want, in justice to my side of the argument, to point out that he has not done so, and that he has thereby given the lay reader, for whom, I think, this book is primarily intended, an idea that his contention is almost self-evident.

I should like to see him, or someone with equal powers of exposition, take up the case for the defence, and then sum up without bias. When that is done the lay reader might play the part of the jury, and I for one would be well content to await his verdict.

F. G. PARSONS.

Archæology.

Hubbard.

Neolithic Dew-ponds and Cattle-ways. By Arthur John Hubbard, M.D., and George Hubbard, F.S.A., F.R.I.B.A. Third Edition. Pp. xxi+119. **72**
Figs. 29. London: Longmans, Green & Co. 1916.

The breezy style of this book, reminiscent of the Down air, has assured its popularity, and it is no wonder that a third edition has been called for. The authors know their country well, and no detail, however small and unimportant it may appear to the uninitiated, escapes their notice. Every trackway and pond is noted and the meaning of each explained with a fullness and certainty which arouses suspicion in the sceptic. Why everything on the Downs should be relegated to Neolithic days is not quite clear, except that it sounds distant and romantic; it suggests that these wild regions have remained unvisited by man or beast during the period that has elapsed between the close of the Stone Age and the arrival of the authors.

They consider that the period described may be divided into two—the Hill period and the Plain period, though no definite evidence is adduced in support of this classification. Contrary to nearly all the evidence resulting from recent excavations, the Hill-top camps are assigned to the first period, and the authors are uncertain as to nothing but the relative ages of the tumuli and barrows. The distinction between these two forms of mounds is not given, which is a serious omission, as the ordinary archæologist has been wont to look upon these terms as synonymous. Perhaps the authors mean long barrows and round barrows, in which case the contents of those explored might have helped them not a little, and shown them that most, at least, of the latter are post-neolithic in date. The attempt to show that the remains of terrace-cultivation, known as “shepherds’ steps,” were designed originally as defences against wolves is ingenious if not altogether convincing.

Though the interpretation of the phenomena noted cannot be seriously accepted, the authors may safely be congratulated on their powers of observation and description. The book is eminently interesting and attractive, while the illustrations and the general “get-up” of the volume do credit to authors and publishers alike.

HAROLD PEAKE.

Museums.

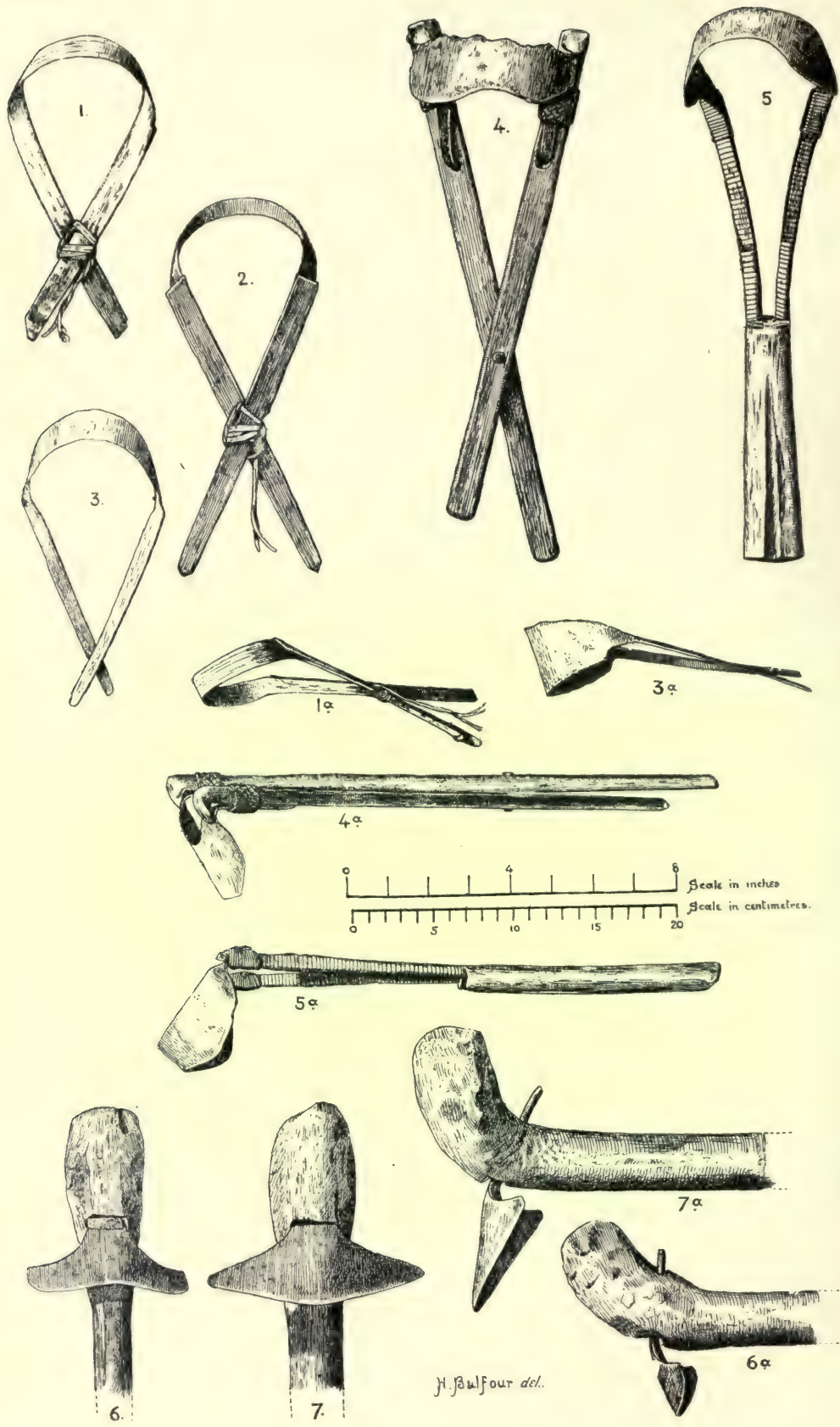
Leite de Vasconcellos.

De Campolide a Melrose. Pelo Dr J. Leite de Vasconcellos. Lisbon. 1915. **73**

This little work is an interesting account by Dr. Leite de Vasconcellos, the distinguished Portuguese ethnologist and scholar, of the results of an expedition through Great Britain and France, in the course of which he visited the principal museums of these countries and other institutions affecting his studies. The British Museum is especially dealt with at considerable length, and with intelligent appreciation. The museums of Oxford (especially the Pitt-Rivers) and of Edinburgh also attracted the attention of this very competent anthropologist. On his voyage southwards he did not delay long over the Paris collections, which he had noticed in a previous work, but gives a valuable appreciation of the Museum of the Society of Antiquaries at Poitiers.

Such studies by friendly observers from abroad are of great value as showing how our national collections, which do not always receive sufficient recognition from our own authorities, are regarded by competent foreign observers.

M. LONGWORTH DAMES.



SOME TYPES OF NATIVE HOES, NAGA HILLS.

(Scale, one-fourth.)

ORIGINAL ARTICLES.

Archæology.

With Plate G.

Balfour.

Some Types of Native Hoes, Naga Hills. By H. Balfour, M.A.

74

There are very many points of interest in the processes and observances connected with agriculture among the native tribes of the Naga Hills, Assam, and among the implements used there are several which are noteworthy. In the present note I wish to call attention to certain varieties of the native agricultural hoes which offer features of special interest, and which deserve to be placed on record on account of the primitive characters exhibited by them, and also because a series of developmental stages can clearly be made out. Further, by reason of the increasing facilities afforded for importing more advanced types, the more primitive forms are tending to disappear. For the specimens which I am about to describe, and for information regarding them, I am greatly indebted to Mr. J. H. Hutton, I.C.S., from whose generosity the Pitt Rivers Museum has very considerably benefited.

Among the Sema, a very primitive tribe of Naga, the Lhota, and also some of the Eastern Naga, a very simple and rudimentary form of hoe, called *akuwa* by the Sema, is still in use for eradicating weeds from crops. It consists (Figs. 1 and 2) merely of a narrow, flat strip or band of bamboo, about 18 inches to 22 inches long and about $\frac{3}{4}$ inch wide. This strip is divided roughly into thirds; the central third is shaved down to form a sharp, flexible blade; the terminal thirds are left somewhat thicker and form together the handle. The demarcation between the thicker and thinner portions is abrupt, as may be seen in the "dorsal" view (Fig. 2). To form the hoe, the two ends are brought together and crossed, and are then bound together with a cane strip at the point where they cross one another. This causes the flexible central part, or blade, to assume a strongly curved form. The hoe, thus formed, has somewhat the appearance of a necktie. The crossed ends form a convenient grip and the pitch of the blade (*see* side view, Fig. 1*a*) would appear to be very practical. Such a form of light, scratching hoe, efficient though it is for the purpose to which it is devoted, is made very quickly and easily with a few cuts of the *dao*, and costs nothing. It has its drawbacks, however, since it is necessary to keep the newly-made ones for a year or so before they are fit for use, as they must be allowed to harden. Even when this precaution has been observed, and after they have been further hardened by smoking, these hoes wear out very rapidly, and are often used up at the rate of seven or eight a day per person. Hence it is natural that the primitive bamboo *akuwa* is being supplanted by iron-bladed hoes, and is showing signs of obsolescence.

Many Sema villages are without means of working iron, and import their spear-heads, *dao*-blades, etc., though where they have taken to iron-working they prove to be clever smiths. Men of the Lhota tribe have stated definitely that the bamboo hoes are the *prototype* of the iron hoes of similar form (I particularly asked Mr. Hutton to ascertain whether this is so), the examples made of iron having come into vogue comparatively recently, within living memory, with the result that the bamboo examples, though formerly commonly in use, have almost disappeared from the Lhota country.

There is evidence that, even though more or less developed iron-bladed hoes have been introduced from more advanced districts, there has also occurred indigenously a direct development from the bamboo *akuwa*. A very significant type of iron weeding-hoe is found in use among the Ao Naga, who call it *allu-lum* (*i.e.*, "field-scraper"). Though entirely of iron (Figs. 3 and 3*a*), it is an exact replica of the bamboo "necktie"-shaped hoe. It is made from a single piece of flat iron,

the central third wider than the ends and forming the blade, which is strongly arched by the bending of the iron until the two narrow, straight ends cross one another, exactly as in the bamboo form. I am not sure as yet whether the *allu-lum* is actually used in this form *un-hafted*, or whether it is invariably fitted to a haft. The examples sent to me are not bound at the point of junction of the crossed tangs (as in the *akuwa*), and this would be necessary to render them serviceable for use. The specimens are, however, unused, and have not been quite completed for use. In any case, the shape with the crossing tangs as turned out by the smith, even though it may have, as it were, but an "embryological" significance, points unmistakably to a direct derivation from the bamboo hoe, of which it is a mere copy in iron. The deeper blade prolongs the useful life of the implement.

Such forms of two-tanged hoe blades of iron are usually seen fitted to wooden handles, and a very interesting transitional form of hafted hoe is seen in Figs. 4 and 4a. This was procured from the Konyak Naga, of Chinglong village, but the type is also to be seen among the Ao and some of the Lhota who live near the plains and are more in touch with higher cultures. The blade with its two tangs is almost identical with the *allu-lum* of the Ao (Fig. 3). It is less strongly arched, as the tangs, though converging, are not brought together, but are fitted to a haft of peculiar form. This haft (Fig. 4) consists of two straight and slightly flattened bamboo rods, each of which is cut in the form of a hook at the distal end. The tangs of the blade lie along the under side of the rods, their extremities being clipped through holes in the latter, to which they are further secured by collars of plaited cane. The hooked ends of the rods help to keep the blade in place and to prevent any tendency to shift when drawn through the ground. A specially interesting feature of the haft is seen in the crossing of the two rods which compose it, a feature which is so markedly reminiscent of the bamboo prototype of "necktie" form. At the point of junction a wooden rivet, the ends of which are burred or "mushroomed" by hammering, unites the rods firmly together. The resultant haft is awkward in appearance, and would hardly have been purposely so designed; its shape is clearly due to "hereditary tendencies," and is derived directly from the conveniently crossed tangs of the simple bamboo hoe.

Another type of weeding-hoe, showing a marked improvement upon the last, though still betraying its derivation from the *akuwa* type, is shown in Figs. 5 and 5a. It was obtained from the Ao Naga. The two-tanged blade is one of the *allu-lum* (Fig. 3). The haft is improved from that of the Konyak example (Fig. 4), and is far more convenient. The X has become a Y, and the single stem forms a very serviceable grip. The distal end is cut to form two diverging prongs, to which the tangs of the iron blade are fastened. The latter lie along the under side of the prongs of the forked haft, and are held in place by means of a neatly-executed "whipping" of narrow cane-strip. At the extremity of each prong a reinforcing binding overlies the whipping, and is very cleverly and ornamentally finished off. The edge of the blade of this specimen is considerably worn at the centre as a result of use.

The four types to which I have referred appear very clearly to represent four successive evolutionary stages in hoe development. First, there is the "necktie" hoe, made by crossing the ends of a bamboo splint. Second, an identical form made of iron, which the natives assert is a derivative from the first. Third, the two-tanged blade hafted to two wooden rods, forming prolongations of the tangs, whose ends are crossed and so retain the "necktie" shape of the prototype. Fourth, the same type of blade hafted to a Y-shaped handle cut from a single piece, in which a single grip replaces the awkward X-shaped handle, the result being an eminently serviceable tool.

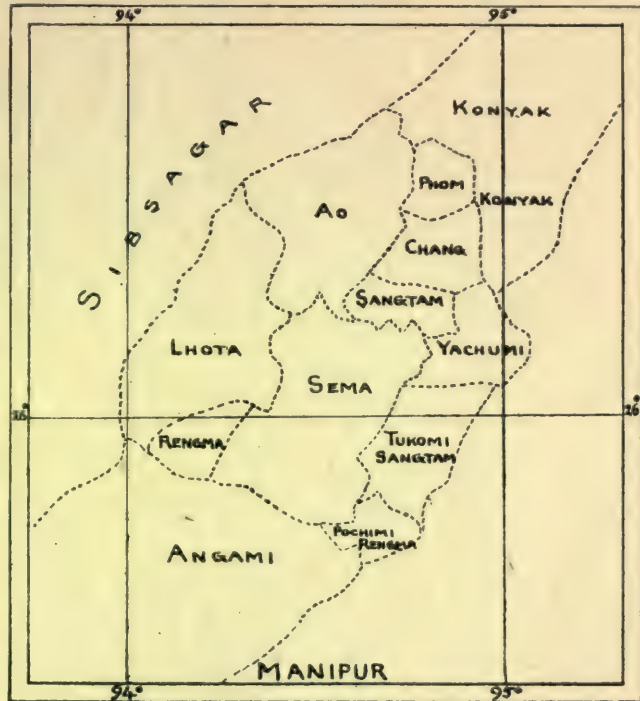
Other types of iron-bladed hoes are found among the Naga tribes, which appear to have developed along different lines. They mostly suggest a derivation from stone celts hafted adze-wise in various typical neolithic fashions. Some small hoes obtained among the Naga of Ledo were sent to me by Mr. S. E. Peal, in which the iron blades are flat, and forged with very broad tangs and shoulders. These are hafted by bending a cane rod round the tang so as to grip the latter, the ends of the rod being bound together with a sliding collar of canework, a mode of hafting well known in Australia and in North America. This type of iron blade may be derived from the tanged-and-shouldered type of stone adze (or ? hoe) which is specially characteristic of the Indo-Chinese area, and which is very abundant in Burma, the Shan States, Cambodia, Annam, and the Malay States. This type, in a somewhat undeveloped form, is very common in the Naga Hills.

Other hoe-blades of iron, simply tapering upwards from the edge, and reminding one of almond-shaped neolithic celts, are hafted among the Lhota, Sema, and others by binding on to the front of the shorter limb of an angular handle cut from the junction of two branches, after the fashion of many stone-bladed adzes from New Guinea, the Solomon Islands, and elsewhere.

Others, again, are driven into holes near the ends of club-like handles, a very common neolithic mode of hafting in many parts of the world. Among the examples of this type of hafting some are seen in the Naga Hills in which the iron hoe-blade has a well-defined single tang (Figs. 6, 6*a*, and 7, 7*a*). The two examples figured seem to show a relationship

with, or the influence of, the bowed blades (*e.g.*, Figs. 3, 4, and 5) described above, and thus may be indirectly linked with the bamboo *akuwa*, inasmuch as the blades are more or less strongly curved, the concave surface being towards the handle. The specimen shown in Figs. 6 and 6*a* was procured from the Sema, who had imported the blade from the Yachumi country. It is called *tachumi* by the Sema, and is used for clearing stubble from old fields. The blade of the hoe shown in Figs. 7 and 7*a* was procured by the Sema from the neighbouring Yingurr; it is called *da-füchi*. A similar form comes from the Chang tribe.

I give for purposes of reference a rough sketch-map showing the positions of the various Naga tribes referred to. The map is based upon one kindly sent to me by Mr. Hutton.



West & Central NAGA tribes.

HENRY BALFOUR.

Africa, North.

Murray.

Marriage Ceremonial of the Barabra. By G. W. Murray.

75

The following is an account of the marriage customs of the present inhabitants of Shellal. When a young Nubian wishes to marry a certain girl, he tells his father, who despatches an embassy, as it were, to inform the girl's father of the proposed match. If the match is convenient to both parties, the families meet separately to discuss the details of how the match is to be carried out. A night is fixed, when the marriage contract is drawn out before the *qadi*. Of the sum for which the bridegroom makes himself liable, half is paid on the spot to the bride's father. The other half is to be paid to the bride in the event of her being divorced by the groom, though if she leaves him of her own accord nothing is paid. Unlike the custom of the fellahin, the bride does not have to provide the household furniture, or even her own jewellery, but instead of this her father provides the house for the newly-wedded couple. The bridegroom has to find not only his own marriage garment, which should be of silk if possible, and as expensive as his means allow, but also the bride's trousseau and, as mentioned above, her jewellery.*

After the contract has been signed, a feast is given at the bridegroom's house, to which all the village is invited except the bride's family. A calf, an *ardeb* of dura, and half an *ardeb* of wheat is sent to them for their delectation; on this night the bride makes her toilet and stains her person with henna. On the morning after the feast a collection is taken up among the guests for the bridegroom's benefit, each contributing according to his means. The bridegroom's father makes a note of the amount given by each, so that on the occasion of the contributor's marriage (or, if he is an old man, his son's) it may be given back to him. The manner of giving the money is as follows: The bridegroom lies on his back, while the contributions are placed on his forehead. After this the bridegroom performs his ablutions and dresses himself in his marriage suit. He fastens a handkerchief over his mouth, securing it on the top of his head as if he had the toothache. This to ensure his silence on his journey to the bride's house, even if it lasts all day. He carries a sword in his right hand, resting on his shoulder, and a knife bound on his left arm within his sleeve, and a kurbash and the sheath of the sword in his left hand. A handkerchief is inserted in the sheath. He proceeds thus to the bride's house, arriving at sunset, when all partake of dinner, the above mentioned calf being killed and eaten. (It does not matter where the calf is killed.) They eat a second meal about 9 p.m., and remain talking till midnight.

The bridegroom has to rise and salute with his sword all comers, even the smallest child, and may not sit down again till the visitor has given him leave. At midnight the bridegroom visits the special house which has been built for the bridal pair in the courtyard of the bride's father's house. The bride is brought there for his inspection, and taken away again by her mother after about five minutes. All the guests enter, and a third meal is eaten inside the house. Then they go to sleep in the house, which is now the bridegroom's. On the second night three married women bring the girl to the groom, and they do not release her till he has given them a shilling or two for her. For three days from the first night the bridegroom does not stir from the room, except to ease himself. After three days he kills a sheep, and takes its head and haunch to his father. The rest goes to furnish another feast for the relations. After forty days the bridal couch is removed; until then it is not touched, nor is any dust that falls upon it removed.

After forty days the handkerchief is removed from the sheath; until then the

* A common present from the bridegroom to the bride is 100 small articles, each worth about one piastre.

sword and the whip have been placed between the mattress and the mats (*bursh*) on which it lies.

During the period from the first marriage feast to the next new moon thereafter, neither groom nor bride may put their legs into the Nile. All ablution is performed in the house.

Marriages should not take place in the month Muharram. Showwal is the best month. There must be no mending of clothes or fantasia while the "Scorpion" (*Ursa Major*) is above the horizon.

Child marriage is common; long betrothals are not customary.

G. W. MURRAY.

Mythology.

Barton.

The Spirits of the Dead in the Trobriand Islands. By F. R. 76

The extremely interesting paper contributed by Dr. Malinowski under the above title in the *Journal of the Royal Anthropological Institute*, Vol. XLVI, p. 353, demonstrates very clearly that the natives of the Trobriand Archipelago do not directly attribute the condition of pregnancy to sexual connexion, and the writer gives good grounds for thinking (p. 414) that the same ignorance prevails in some measure among the Western Papuo-Melanesian tribes. It was while reading Dr. Malinowski's paper that I recalled a letter written to me some ten years ago, when I was administering the Government of the Territory of Papua. At that time Mr. R. L. Bellamy was the Government officer in charge of Kiriwina, the largest island in the Trobriand group, and I frequently corresponded with him on questions respecting native art and customs in Kiriwina. His letters I have kept, and on referring to them I find that in 1906 he had actually gathered the elements of the same information which Dr. Malinowski has set forth with so much valuable amplification in Part VII of the paper under notice. The following is a quotation from Mr. Bellamy's letter of June 1st, 1906:—

"Puritari, chief of Mulosaida, gave me quite a generous laugh the other day. We were discussing the arrival of the first people on Kiriwina. Puritari says he has seen 100 *taitu** seasons, which statement allows room for a judicious compliment on his still youthful appearance. First of all he said there was just bush—no man. A lizard started scratching and out sprang a pig. The pig took up the scratching and rooting and out came five girls. And soon afterwards these girls had children. As we had not yet spoken of men, I put the question to him as to why and how they could have children without men. He thought it quite a silly question. The girls, he went on, lay in the dorsal position on the ground when a heavy shower of rain came on. That settled it. Puritari blamed the rain.†

"Now it would seem that in the natives' mind here childbirth is not necessarily connected with sexual intercourse. It is a subject I haven't touched upon with the natives yet to any extent."

I do not recollect having subsequently had any conversation with Mr. Bellamy on this subject, nor do I know whether he took any further steps to investigate the matter. Early in 1907 I left New Guinea.

It may also be worth recording that in 1903, when I was patrolling the country near the foot of Mount Obree, on the southern aspect of the Owen Stanley Range, my Sinaugolo carriers informed me one night over the camp fire that we were then in the neighbourhood of a village which was inhabited solely by women. I remember asking them jokingly how in such circumstances these women were able to repro-

* A species of yam, see p. 372 of Dr. Malinowski's paper.

† cf. the tradition concerning the cause of pregnancy of Bulutukua on p. 412.

duce, and that they replied that this they were able to do through the agency of pointed stones. I cannot, however, remember whether I asked them how it came about that they bore no male children. They further informed me that many years previously two men of one of the upper Sinaugolo villages lost themselves while pig-hunting, and were caught by the women of this village, who treated their two captives so scandalously that one of them succumbed and that the other escaped in a condition of extreme debility by crawling away on his hands and knees. Next day, while we were passing along a high ridge, they solemnly pointed out to me a distant range of hills on which they said the women's village was situated.

On p. 415 Dr. Malinowski states that in conversation with Sinaugolo natives he received negative answers to all direct questions whether there is anything in sexual intercourse which induces pregnancy. Presumably he had not at that time been in Kiriwina, for he states that "unfortunately" he made no inquiry of his informants as to whether there are any Sinaugolo beliefs about the "supernatural cause of pregnancy." Perhaps he regarded the information at that time with much the same kind of thoughtless levity as that in which I listened to the story of the male-less village.

F. R. BARTON.

Botany.

Prain.

The Geographical Diffusion of Kava and Betel. By Sir D. Prain.

77

The use of kava (the infusion of *Piper methysticum*) according to Hartwich (*Menschl. Genussmittel*, pp. 500-503) covers an area extending from 130° E. Long. to 145° W. Long. and from 30° S. Lat. to 16° N. Lat. Mr. Drake del Castillo says (*Fl. Polyn. Franç.*, p. 165) that it occurs spontaneously and as a cultivated plant in the Society and the Marquesas Islands. But it has to be kept in mind that such a plant may be spontaneous without being necessarily native, and there is no record save that of Drake as to its having been found in a wild state. Hillebrand (*Fl. Hawaii. Isl.*, p. 417) definitely states that it has not been observed in a spontaneous condition in the Sandwich Islands, and B. Seeman (*Fl. Vit.*, p. 260) also speaks of it as if it were only a cultivated plant in Fiji. In an interesting note on the plant Seeman says that kava is not known in those islands which are inhabited by Papuans.

The use of betel is evidently, so far as India is concerned, traceable to a Malayan origin. Sir George Watt (*Commerc. Prod. India*, p. 891) has ventured to suggest that it is perhaps a native of Java, and Hartwich (*Menschl. Genussmittel*, p. 531) has mentioned some evidence in favour of that theory. But from what is known of other economic plants, e.g., the Pomelo, which came to India from Java, and is still on this account termed by the people of Bengal the Batavi Limbu, i.e., the "Javan Lemon," this is doubtful. Konigsberger (in a letter to Chibber, quoted in a recent number of the *Linnean Society's Journal*, Vol. xli, p. 357) denies the claim of *Piper Betle* to be a wild plant in Java. However, according to Konigsberger, *P. Betle* is wild in Celebes, and probably also wild in the Moluccas. This is interesting, since Celebes and the Moluccas lie east of the "Wallace Line," and, from the botanical standpoint, all east of the Wallace Line is Papuasiasia, though it is more usual to consider Celebes and the Moluccas as integral portions of Malasia.

Briefly, the conclusion from the facts available would be that betel (*Piper Betle*) is of Papuasian origin and that its use has spread westward to Malaya proper, and from Malaya proper to India; while kava (*Piper methysticum*) is of extra-Papuasian origin, though where outside Papuasiasia that origin is to be sought is not certain. The chances are Polynesia somewhere—one cannot say more at present.

D. PRAIN.

Solomon Islands: Linguistics.

Ray.

On a So-called Malayta Vocabulary. By Sidney H. Ray.

78

In the *Zeitschrift für Ethnologie* (Band VIII, pp. 405-417) a vocabulary was published by H. Strauch in 1876 of a supposed Malayta language. The island of Malayta (or Malaita, properly Mwala) is situated in the south-east of the Solomon Group, but the vocabulary was not collected *in situ*. Lieutenant Strauch obtained it from two "South Sea Islanders," during the stay of the "Gazelle" at the Quarantine Station at Brisbane, Queensland.*

An examination of the words in the vocabulary discloses the fact that it does not belong to any dialect of Mwala (or Malayta), but represents a language of Ysabel Island, which is situated to the north-west of Mwala. This will be apparent from the following list, in which the first column gives the word as in Strauch's list, the second the real Mala (Saa dialect), and the third Bugotu, the best known language of Ysabel Island:—

ENGLISH.	STRAUCH'S LIST.	SAA.	BUGOTU.	NOTES.
Sun	náhō	sato	aho	Bugotu na (article "the").
Moon	wúlā	warowaro, sineli	vula	
Water	mbācā	wai	bea	
Fire	bōbaessú	duze	joto	Bug. beubethu (a flame, to blaze).
Ashes	dschólō	qasa-ora	pidaravu	Perhaps a misprint for joto. Cf. "fire."
Smoke	nāhū	sasu	ahu	Bug. article na.
Sky	nāgūrī	salo, leni	maaloa	Bug. na guri (the wind).
Thunder	nōhá	loulou	gumu	NOTE.—Strauch has reversed the words for "thunder" and "lightning."
Lightning	gūmu	waariri	ona	
Iron	tólókā	hau	valau	Perhaps a misprint. Bug. totoka (a hoe).
Wood	ngāō	dano, ai	gai	
Eye	mātā	maa	mata	
Nose	éhū	qalusu	ihu	
Mouth	lěwō	wawa	livo	
Tooth	kāēi	niho	kei	
Face	bákō	maa	mata	Cf. next word.
Cheek	ngōē	papali	bako	Bug., Saa, noinoi (chin).
Whiskers	būlōng	sasate	bulunounou	Bug., beard.
Arm	līmā	nime	lima	
Hand	tīmā	nime	lima	Apparently a misprint of "t" for "l."
Finger	kāukāu	riirii	kaukau	
Leg	nāi	ae	nae	
Foot	tātābā	penata-na aena	bithaba	Bug. and Saa, sole of the foot.
Head	ólū	qau	ulu	
Forehead	lāgnāē	dara	lane	
Hair of the head.	būrūlū	warehu	sesehu	Bug. buuburu (grass), or vuluga (hairy).
Tongue	sāpī	mea	thapi	
Nail	hgūghū	mwisi	guugugu	
Breast	rāngā	susu	raga	
Belly	kūtū	oqa	kutu	
Back	pōgūrū	pulo	poguru	
Navel	roāpē	—	sope	
Anus	bōkē	—	—	

* „Als S.M.S. „Gazelle“ während ihres Aufenthalt in Brisbane (Queensland) auf der Quarantine-Station bei der Peel-Insel lag, hielten sich vorübergehend zwei „South-Sea Islanders,“ die wahrscheinlich wegen eines Vergehens von einer Zucker-Plantage geflohen waren, an Bord auf. Sowie in Erfahrung gebracht werden konnte, waren beide von Malayta und erst seit kurzer Zeit in Queensland. Dieselben konnten nur einige Worte english, doch werden die umstehenden Wörter pantomimisch erlangt,“ pp. 406-7.

ENGLISH.	STRAUCH'S LIST.	SAA.	BUGOTU.	NOTES.
Buttock	kāā	—	kea	
Testicles	bōrō	—	—	
Penis	wiō	—	vio	
Fowl	kōkārōkō	kua	kokorako	
Fish	siae	hoi-ie	fei, iga	
Pig	bq/o	pōo	botho	
Snake	poli	mwaa	poli	
Cow	iu	keu (English)	kau (English).	Bug. in dog, Saa usu dog.
Go	taweti	lae-wau	taveti	
Sit	fopo	io	sopou	
Stand	fōkāā	ure	sokara	
Run	rāgē	huru	rage	
Leap	sōngāllā ?	pola	sogala	
Lie, lay	āengō	eno	ali	
Swim	ōfō	olo	otho	
See	dodōrrō	lio, loo	regi, dodoro	Bug. dodoro (to watch).
Hear	rōrōngō	rono	roorono	
Sleep	ngōrā	maahu	nere	
Dance	sōngāllā ?	maomao	<i>Cf. Leap</i>	
Feel	kikiniimbī	hieī, hieini	—	
Throw	sōniā	asie	soni	Final ā is obj. pron, 3rd sing.
Die	sāchāc	mae	thehe	
Red	sissi	nonoroa	sisi, mela	
Yellow	mēlā	sausaula	anoano	mela is "red" in Bugotu.
White	pūrā	rearea	pura	
Black	djōngōng	rotohono, pulu	jono	
Boat	bārū	iola	—	Gower Is. N.W. Mwala, baru.
Paddle	wōatē	hote	jema	Lau d. Mwala, fote.
Spear	gārrātu	noma	garatu	
Bow	bāssī	pasi	bage	
Arrow	sācō	omo	sia	
Hatchet	kīlōkilē	hau-toutohu	kiakile	
Cloth	pōhē	tooni, sala	pohe	
Rope	pērū	ieli	piru	
Shell (fish)	bōrā	—	bora	Bug. bora is a hole made by an animal for a dwelling.
Numerals:—				
1	kēhā	eta, taataa	keha, sikei	
2	rūā	e rue	rua	
3	tōlū	e olu	tolu	
4	wātī	e hai	vati	
5	lima	e lime	lima	
6	hanoch	e ono	ono	
7	witu	e hiu	vitu	
8	halugh	e walu	alu	
9	hia	e siwe	hia	
10	salage	e tazahulu, awala	salage	
11	sike	awala mana eta	salage sikei	
12	salage rua	awala mana rue	salage rua	
13	salage tolu	awala mana olu	salage tolu	
20	tutu	e ro awala	tutugu	
30	tolu hangawulu	e olu awala	tolu hazavulu	
40	rotutu	e hai awala	e rua tutugu	
50	lima hangawulu	e lime awala	e lima hazavulu	
60	tolu tutu	e ono awala	tolu tutugu	
70	wati tutu	e hiu awala	vitu hazavulu	Strauch's word means "80."
80	hehangawulu	e walu awala	vati tutugu	Strauch's word means "90."
90	hawangatu	e siwe awala	hia hazavulu	Hawangatu is a mistake for hathazatu.
100	hawangatu salage	tazalau	hathazatu	Strauch's word is meant for "ninety-ten," but is really "hundred-ten."

Strauch used *f* for the "soft s" (th of Bugotu), *oa* as English *a* in "water," *ö* guttural. The Saa and Bugotu words follow the orthography of books in those languages. The letters in italic are nasal: *n* = ng in "singer," *g* = ng in "finger," *m* = mw in "am working," *d* = nd in "under," *b* = mb in "amber." Bugotu *th* as in "this," Saa *q* as *pw* in "upward."

All the dialects of Mwala are very much alike and show hardly any agreement with Strauch's list. *Woate* (paddle), *bassi* (bow), and perhaps *aengo* (lie) are similar to Mwala, and *baru* (boat) is found in Gower Island, close to N.W. Mwala. On the other hand, all the words of Strauch's list except these four and *kikinimbi* (feel), are perfectly recognisable as Bugotu, though misinterpreted by Strauch or misprinted in a few cases. The evidence that this vocabulary represents the Bugotu dialect of Ysabel Island, and not a Mwala (or Malaita) dialect, appears to be incontestable.

SIDNEY H. RAY.

REVIEWS.

Siberia.

Shklovsky.

In Far North-East Siberia. By I. W. Shklovsky ("Dioneo"). Translated by L. Edwards and Z. Shklovsky. Macmillan & Co. 1916. Price 8s. 6d. **79**

The name of Mr. Shklovsky—"Dioneo"—is very well known in the literary circles of Russia as that of a writer on Great Britain and her social and political institutions. No other "humanist," translating, as it were, Western to Eastern Europe, has attained his high standard.

This book, however, relates to an early epoch of Mr. Shklovsky's literary career, and is the result of his enforced stay in the Kolyma region of Siberia, where, like so many other political exiles, he did not waste his time.

Like many other ethnographical authorities on Siberia, Mr. Shklovsky was not an ethnologist to start with, but it is easily seen, if only from the knowledge of English literature which he shows in this volume, that his general education was such as to enable him to make valuable ethnographical observations.

The Russian edition of the book appeared in 1895, its contents having previously been published in a series of articles, for which the author received a medal from the "Society of Friends of Science" in Moscow in 1895.

Until the investigations of the Jesup North Pacific Expedition, which included the Kolyma region, *In Far North-East Siberia* was practically the only book on this district, and we find frequent references to it in the J.N.P.E. volumes.

It is no exaggeration to say that ethnological students of Eastern Siberia cannot dispense with Mr. Shklovsky's book, though in some respects, as is the case of the numbers of the Chukchee, Koryak, Chuvany, &c., the J.N.P.E. volumes give a more correct statement of the facts. For example, on page 5 Mr. Shklovsky says that in 1889 the whole tribe of the Koryak was swept away by small-pox, but Mr. Jochelson, one of the members of the J.N.P.E., still found about 7,000 Koryak some years later.

We cannot agree with the author that it is wrong to put the Lamut and the Tungus into one class (page 184), though we grant him that as far as is known at present the Yukaghir must be placed in a separate group, at least linguistically. Still, we owe our knowledge of this to the profound studies of Mr. Jochelson, which are more recent than Mr. Shklovsky's book.

Mr. Shklovsky gives us a great deal of information about the Kolyma Yakut, the Lamut, and the Chukchee. Among the illustrations there are several plates, with interesting drawings made by the Chukchee. On page 112 there is a reference to "Arctic hysteria," and it is interesting to note that the author does not find these

nervous complaints among people so well acclimatised to the Polar region as the Chukchee.

The translation, including a certain amount of abbreviation, is very successful, and it is not the fault of the translators that they could not find any English ethnographical gazetteer in which to verify the spelling of the names of tribes and rivers. It is to be regretted, however, that they did not refer to such standard works as the J.N.P.E. volumes. They would then have avoided such clumsy forms as Oulooss (instead of Ulus, page 192), Chooktcha, Chooktchan, Yakoots (page 28), Yakutian (page 39), &c. It seems almost better to transliterate Russian names than to make a free translation, and in the case of little known tribes, it would perhaps be better to employ the substantive form for the adjective also. Still more important is the spelling of foreign names of explorers, which should be given in their original form, and not transliterated from Russian. For instance, we find Kastren instead of Castrén (page 107), Midendorf instead of Middendorff (page 93), Vrangél instead of Wrangell (page 4), Meidel instead of Maydell (page 109), &c.

Some of the illustrations are taken from *The Voyage of the Vega* (Macmillan, 1881), e.g., page 105 from Vol. II, page 107 from Vol. II, page 101, &c. It is a pity these are not acknowledged in the English edition, even though acknowledgment may not have been required in the Russian edition of the book.

These are, of course, only minor details. Mr. Shklovsky's book may be welcomed as an important addition to the ethnographical literature of Siberia, of which there is so little in English.

M. A. C.

Africa, West: Linguistics.

Thomas.

Specimens of Languages from Sierra Leone. By Northcote W. Thomas, M.A., F.R.A.I., &c., Government Anthropologist. London: Harrison and Sons. 1916. 80

This volume contains a number of vocabularies in various languages spoken in the Sierra Leone Protectorate, and adds considerably to our knowledge of the linguistics of that part of Africa. One language, Krim, appears for the first time, and some phrases and sentences are given in others of which the only published specimens are short vocabularies of ancient date.

The languages belong to several groups, of which the Timne, Susu, and Mende, Gora and Ful may be regarded as the most distinctive of the Sierra Leone region. In the supplement Mr. Thomas gives, also, some specimens of Kru languages which belong to Liberia rather than to Sierra Leone.

The Timne, a grammar and dictionary of which are given in the author's Report on Sierra Leone, and the Limba, which is here illustrated by vocabulary in five, and by phrases in two dialects, belong to that section of West African tongues which resembles the Bantu in (1) the classification of nouns by prefix, (2) the indication of number by a change of prefix, (3) an alliterative agreement of the prefixes of related noun and adjective, and (4) a concord of the objective pronoun with the prefix of the noun for which it stands. Examples from Timne are:

- (1) *ra-sek*, tooth; *kə-ta*, hand; *a-set*, house.
- (2) Plurals: *e-sek*, teeth; *tə-ta*, hands; *e-set*, houses.
- (3) *Ra-mes r-in*, egg one; *ta-teh tə-ren*, feet two; *e-lop ə-les*, fish bad.
- (4) *Sek ra-bina ake*, tie board that; *səle ri*, untie it.

The syntax, however, is unlike Bantu, and though some resemblances have been found in roots there is no certain evidence of connection.

Vocabularies and phrases are given by Mr. Thomas in Belom, Krim, and Kisi, languages of the same group as the Timne, in which—Kisi especially—the use of the prefixes to indicate the plural seems to be giving way to suffixes, possibly owing to

the proximity of suffix-using languages. In Limba, for example, the plurals of names of animals are formed by suffixes, thus: *Fo-ya* (eye), *ta-ya* (eyes), *yo-nko* (hand), *te-nko* (hands), *fe-li* (egg), *te-li* (eggs); but *kosa* (pig), *kosen* (pigs), *batutu* (serpent), *batutu-in* (serpents), *bec-in* (birds), *fē* (fish), *fē-ni* (fishes) (the last three examples not from Mr. Thomas's lists).

A vocabulary is given of the Susu spoken just within the north-western boundary of Sierra Leone. This is generally recognised as belonging to the Mande group of suffix-using languages, and to that division of them which Delafosse has called the Mande-fu languages (from *fu*, the word for "ten"). Mr. Thomas also gives vocabularies of Koranko, Yalunka, Kono, and Vai which belong to the Mande-tan division of Delafosse (*tan* = 10). In these languages the plural is formed by a suffix, by a change in the noun ending, or by a separate word following. To the Mande group of languages also belongs the Mende, of which Mr. Thomas gives vocabularies in the dialects of Ba and Pujehun. There is also a list in Loko.

The vocabularies, as the compiler himself points out, contain some errors, which are marked by a note of interrogation. In Susu, *e.g.*, *ib'ekunji* for "his slave" is properly "thy own slave," and *ulakuni* (bow) is really "arrow." On the other hand, a few words marked (?) are really correct, as, *e.g.*, *aito* (he sees you), *awanto* (he sees us). Some of the vocabularies were obtained by the help of Mendi-speaking interpreters, others with the help of Timne. The Gola vocabulary, in which some additional words are given from Koelle's manuscripts, is the fullest account yet given of a language whose affinities have not yet been clearly made out. With it is given a vocabulary of the Ful spoken by scattered communities in the Protectorate. Some words from Koelle's manuscripts in Kisi, Gola, Dewoi, Basa, and 'Pwesi, a few texts in Buləm, Limba, Susu, Kono and Loko, and some notes on Tones conclude the volume.

Taken as a whole the book is an important and valuable contribution to the study of the Sierra Leone languages.

SIDNEY H. RAY.

Sociology.

Nasmyth.

Social Progress and the Darwinian Theory: a Study of Force as a Factor in Human Relations. By George Nasmyth, Ph.D. With an Introduction by Norman Angell. New York and London: G. P. Putnam's Sons. 1916 Price 7s. 6d. net. 81

This is essentially a book against war, by one who disbelieves in it, though no effort is made to prove that it is impossible. A biological tinge is given to the work by the author's attempt to show that a "pseudo-scientific social Darwinism"—constituting a distortion of the theory of Natural Selection—is largely responsible for a doctrine of force which leads to episodes of "collective homicide." The present war naturally plays a part in the argument, and Dr. Nasmyth carries his impartiality so far that one is disposed to doubt his fitness for holding the scales. His historical sense is consistently subservient to his idealism, and in his eyes all Europe is tarred with the same brush, the smaller neutral nations alone excepted.

Most thinking men will give conditional assent to the author's proposition as to the futility of war, and it can scarcely be doubted that such international conflicts will become more and more infrequent. Even the Great War would undoubtedly, in spite of the development of man-destroying appliances, have been conducted with more chivalry and humanity than any former war, had it not been for the infected mentality of a nation rabid with the virus of a philosophy of force such as even Dr. Nasmyth does not seem to have realised, and which he has certainly not traced to its origin.

It is no reproach to the idealists that their aims will not be achieved through idealism, but their impatience with facts must necessarily be weighed against them. Mankind is in its infancy, and will progress, as it has already risen, by the method of trial and error. A war may be both, but is not necessarily either. H. S. H

Mythology.

Westervelt.

Hawaiian Legends of Volcanoes (Mythology). Collected and Translated from the Hawaiian by W. D. Westervelt. Boston, Mass.: Ellis Press. 1916. 6s. net. **82**

The third of Mr. Westervelt's volumes dealing with the mythology of the Hawaiian islands is devoted to legends of volcanoes. It is prefaced by Mr. T. A. Jaggar, jun., of the observatory at the crater of Kilauea, the most famous if not actually the largest of the volcanoes of the islands, and comprises an interesting epilogue of articles by the author on the geological facts, including an account of the foundation of the observatory.

The legends deal chiefly with the adventures and doings of Pele, the awful goddess of Kilauea. They are well told; but here, as in the previous volumes, we are haunted by the query, How much of the legends is genuine unadulterated native lore, and how much they owe to Mr. Westervelt. They are hardly in a form that can be used with confidence by the anthropologist. No account is given of the manner of their collection; no attempt is made to assign them to any native story-tellers, or to any special districts; no evidence is given of the extent of their distribution, or of the amount of credit now or formerly attached to them. And it is to be doubted, in the absence of evidence, how far, in the face of the prevalence of Christianity and foreign culture for three generations, and of the American settlement of the islands, these stories can have survived unadulterated in the minds of the Polynesian natives. The book, in short, like its predecessors, is one for "the general reader." It is beautifully illustrated from photographs.

E. SIDNEY HARTLAND.

Architecture.

Innocent.

The Development of British Building Construction. By C. F. Innocent, A.R.I.B.A. 284 pp. many Illustrations. Cambridge University Press. 1916. 10s. 6d. net. **83**

Evidence of much patient study and research is shown in this book. The author, finding "that there was hardly any information readily available as to "the design and construction of the smaller secular buildings" of past ages in this country, set himself to study those still remaining in the neighbourhood of his home in South Yorkshire. Many of these buildings have been demolished in recent years, but the act of demolition has enabled the author to dissect the hidden construction of their various parts with more thoroughness than would have been possible if they had not been disturbed.

This book, however, is not purely local in its aim or subject matter, nor have the whole of the examples mentioned in it been destroyed. Old building methods and materials have been studied in various parts of the country, either by personal inspection, from old accounts, books of agriculture and general topography, or from the more specialised works dealing with the smaller buildings of a particular area.

After an introductory chapter, in which the sources of information bearing upon the subject are described, the author passes to the consideration of primitive forms of building, such as the circular or slightly oblong huts with rounded ends, formed of poles and covered with sods or heath. Comparisons are drawn between these early huts and others of similar date and design found upon the Continent of Europe. Modern examples of the type are mentioned—these are the temporary huts erected

by charcoal burners. The author then deals with the class of buildings in which "crucks" form the principal feature of the construction. The analysis of the various types is very complete, and leads to the consideration of more fully-developed timber buildings, with their details, and the work of the carpenter who was responsible for their erection. Walls, floors, slated roofs, thatching, doors, windows, and chimneys, each furnish materials for chapters full of interesting information. The details connected with the work of the thatcher and of the simple tools used by him are especially valuable. This "decaying industry" seems likely to pass into the realms of forgotten things. The author's notes, founded in part upon information given to him by men engaged in the trade, are therefore of exceptional interest.

In Chapter IV the author refers to the "decrease in culture, northward and "westward, which is found in these islands." Not only, he states, is this inferiority found in the buildings, but "it holds good for articles of culture which have no connection with building. Such are the hand-querns for grinding corn,—Planets which are at a greater distance from the sun receive less light than those which are nearer to it, and through long ages, until modern times, the Continent of Europe played the part of the sun for the culture of these islands." This statement savours of the self-depreciation which is so characteristic of our nation. "Can any good thing come out of Nazareth?" is a sentiment which finds too many supporters at the present day. Not all our "culture" came from abroad, as the history of our mediæval architecture shows, nay, at times our forefathers were even in advance of continental peoples in this branch of art, and were in a position to repay some of the debts which their predecessors might have incurred.

If hand-querns were in general use in the southern and eastern parts of this kingdom so recently as stated by the author, it must have been due to a revival of their use, for querns fell into bad odour in these districts in feudal times. In those days the lord of the manor, finding the great advantage which accrued to himself from the requirement that all his tenants should grind their corn at his mill, took stern measures to repress all other methods. So, too, with regard to the buildings erected in the northern and western parts of the country. It is not unreasonable to suggest that their archaic type is due to the innate conservatism of the inhabitants of those areas, many of whom were descended from the earlier races which peopled these islands, races which had been driven out of the southern and eastern areas by later invaders. The evidence of early civilisation in parts of Ireland and Scotland cannot be treated lightly, and the fact that men from these islands attained to high positions in continental countries in early days suggests that their home standard of "culture" was not so low as the author of this book appears to infer. These suggestions seem worthy of consideration, and are possibly quite as tenable as the theory that the improvements in the construction of the ancient buildings of this country, and in the articles in daily use, are due to the influence of immigrant Flemings.

The book is issued from the Cambridge University Press; it is admirably printed in clear and readable type, and is well illustrated by reproductions from photographs and line drawings. The author, while fully alive to the beauties of the buildings of the past, quite realises that the present is an age of progress, and one in which new methods and materials are the order of the day. He has no desire to set back the clock, and in his concluding words puts clearly the true relation of the present to the past: "The value of old buildings as works of art does not lie so much in their suitability for reproduction as in their power for inspiration, in the intangible principles which were given expression in the different materials and workmanship, whose story in England has been partly told in this book."

JAMES R. WIGFULL.

India : Archæology.**Foucher.**

Archæological Survey of India : Notes on the Ancient Geography of Gandhāra. By A. Foucher. Translated by H. Hargreaves. Calcutta. 1915. **84**

The Archæological Survey of India has done well in bringing out this English translation of M. Foucher's excellent paper on the geography of Gandhāra, which originally appeared in the *Bulletin* of the French School of the Far East in 1901. The original was not easily accessible to many of those interested in Indian archæology and history, and Mr. Hargreaves's clear and idiomatic translation will be of much use.

M. LONGWORTH DAMES.**Russia : Folklore.****Magnus.**

Russian Folk-Tales (translated from the Russian), with introduction and notes. By Leonard A. Magnus, LL.B. London : Kegan Paul, Trench, Trübner & Co., Ltd. 1915. **85**

The Tale of the Armament of Igor, A.D. 1185. A Russian Historical Epic. Edited and translated by Leonard A. Magnus, LL.B., with revised Russian type, translation, notes, introduction, and glossary. Oxford University Press. 1915.

Mr. Magnus, in the former of these two volumes, has translated a selection of folk-tales from the great collections of Afanášev. Russian folk-tales have hitherto been little studied in the west of Europe. Indeed, I think only those translated by the late W. R. S. Ralston and by Mr. R. Nisbet Bain have been accessible, save to the very few who were acquainted with the Russian language. Yet, judging by the specimens given here, and by Ralston and Bain, they are not inferior in interest to those in other European languages. Of the seventy-three tales comprised in the present volume, twenty-two (or less than one-third) had been translated or summarised by Ralston, and two or three others by Bain. It will thus be seen that Mr. Magnus's work is a welcome assistance to students of folk-tales.

The stories in general belong to the common Indo-European stock. But of course they have a special Slavonic flavour—they are filled with heroes and ogres peculiar to Russia, and are tinged with the social condition and history of the Russian peasant. Mr. Magnus's notes are useful. A rough plan of the *izbā*, or dwelling-house, would have elucidated his description of it in the note to the tale of The Dream. Some additions might have been made to render complete his preliminary instructions for pronunciation of the Russian words.

The tale of The Armament of Igor hardly deserves the title of Epic. It is an historical poem, comparable to a certain extent with the English ballad of Chevy Chase. Mr. Magnus's translation (the first in English) has also the original text face to face, so that the edition may serve as a handbook for students of the Russian language and literature. It is preceded by a long historical introduction on the interminable jealousies and savage internecine wars of the dominant houses of mediæval Russia, and is followed by notes chiefly philological. The pagan survivals in the poem are pointed out. The Russian characters used in the scheme of transliteration are thick and blurred, so that it is difficult for one who is unaccustomed to them to identify them with the much clearer type used in the body of the work.

It is likely that Slavonic, and especially Russian, anthropology, philology, history, and literature will in the future play a more prominent part in our studies than hitherto. Mr. Magnus has, therefore, done well to take time by the forelock. If Russia would abandon her antiquated alphabet and adopt the Roman alphabet, retaining only special characters for sounds peculiar to her language, what an impulse would be given to Russian studies in Western Europe!

E. SIDNEY HARTLAND.

Russia.

Tallgren.

*Collection Zaoussaïlov au Musée Historique de Finlande à Helsingfors.**I: Catalogue raisonné de la Collection de l'âge du Bronze. A. M. Tallgren.*

4to. 45 pp. 16 Plates. Helsingfors. 1916. Price 20 francs.

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The collection partly catalogued here belonged to a merchant of Kazan, who had risen to great wealth by his energy, and devoted much to the collecting of tools and weapons around his region. Owing to business troubles his property was sold up, and fortunately this great collection of nearly 11,000 objects is now safe at Helsingfors. It comprises 5,282 stone weapons, 1,292 of copper and bronze, here catalogued, 1,417 of iron, 1,010 of bone, 1,637 objects of pottery and glass, and 295 later objects. We may hope that the other sections will be published as well as the bronzes.

The value of the work lies largely in the ten pages of discussion of the relation of East Russian style to Siberia and the West. It was formerly supposed that there was a break after the stone age, and that the bronze work had come in later from Siberia. The interval is now filled, and the bronze age is autochthonous in East Russia. The general style of East Russia is European, developing from the neolithic, while the style of Siberia is Asiatic.

The best defined copper age group is that of Fatianovo, around Moscow, and as far as the Vistula. It is of a clumsy style, neither Scandian nor Asiatic, and is the source of the bronze age style. In East Russia the early bronze is like that of Serbia and Carniola; the middle bronze, 1500-1000 B.C., is more European; the late bronze is the richest, and was in touch with the Mediterranean, as the Cypriot hoe is found, and a pattern on a disc from Ananino seems copied from a favourite design under Rameses III, 1200 B.C.

The socketed axe, or hammer axe, of bronze, is unknown in Scania and North Russia, but abundant in Danubia, Euxine, Turkestan, and, we may add, Italy and Sicily. It is thus a southern form. In the cemetery of Koban it is dated not before 1500 to 1300 B.C.

The plain blade axe is not separated from the adze in the catalogue, and no side views are given, so that they cannot be distinguished. It is a very common form; but with side lugs only two are known, from Kertch and Kazan.

Daggers are very common, merging into spear and lance heads. They are divided here into (a) pointed ovals with slight tang; (b) with secondary widening at the head of the tang to prevent being driven into the handle; (c) with full parallel-sided tang. A further division should be made in (a) between the stone forms without a narrowed tang, and the narrow tang, which can only be made in metal. The most remarkable type is a fragment with parallel ribbing along the axis, a design only known in Egypt. As it is of red copper it might go back to a copy of the Egyptian copper daggers.

The tanged spear-heads are of the middle bronze age hammered work, or a copy of such. The socketed spear-heads mostly have open loop blades like the British; they are of late bronze age. They are very rare in Siberia, and these go with iron knives and triangular Scythian arrowheads. A photograph is given of a magnificent set of weapons in nephrite and silver from Bessarabia.

The axe commonly called a "socketed celt" is very common, and belongs to the latest bronze age. The hoe reached Russia in the bronze age, probably from Cyprus. It is called an "open-socket chisel" here. The *faucilles* are for cutting grass and brushwood, rather than corn sickles. The knife is curiously localised. While 5,000 are known from Minussinsk (91° E.), only twelve come from E. Russia, and those mostly from Ural (60° E.). This marks an essential difference

of culture, and, strengthened by the general styles already mentioned, it shows that the Ural is a real parting of civilisations, and that Russia was more European than Asiatic. Indexes of places in text and plates are given, and the plates contain 151 figures, nearly all two-third scale, forming an ample record for students. Let us hope we may soon see the rest of the collection similarly published, without wasteful magnificence, but of full value for science.

W. M. FLINDERS PETRIE.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL
INSTITUTE.

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(Donor indicated in parentheses.)

Théorie de la Contre-Evolution ou Dégénérescence par l'Hérédité Pathologique. Par le Dr. René Larger. 405 pp. Librairie Félix Alcan. 7 fr. (The Publishers.)

A Comparative Vocabulary of Sikololo-Silui-Simbunda. By D. E. C. Stirke and A. W. Thomas. $7\frac{1}{4} \times 4\frac{3}{4}$. 40 pp. John Bale, Sons, and Danielsson, Ltd. 1916. (The Authors.)

The American Indians, North of Mexico. By W. H. Miner. $7\frac{3}{4} \times 5$. 160 pp. Cambridge University Press. 3s. net. (The Publishers.)

South-Indian Images of Gods and Goddesses. By H. Krishna-Sastri, B.A., Rao Saheb. $9\frac{3}{4} \times 6\frac{1}{4}$. 272 pp. 4 Plates, 162 Illustrations. Madras Government Press. 1916. 8s. 3d. (The Superintendent, Government Press.)

Rings for the Finger from the Earliest Known Times to the Present, with Full Descriptions of the Origin, Early Making, Materials, the Archæology, History, etc. By George Frederick Kunz, Ph.D. Sc.D.A.M. $9 \times 6\frac{3}{4}$. 366 pp. 290 Illustrations in colour—double-tone and line. J. B. Lippincott Co. 1917. 28s. net. (The Publishers.)

Southern India, Its History, People, Commerce, and Industrial Resources. Compiled by Somerset Playne, F.R.G.S., assisted by J. W. Bond. Edited by Arnold Wright. $12\frac{1}{4} \times 9\frac{3}{4}$. 756 pp. Many Illustrations. The Foreign and Colonial Compiling and Publishing Co. (Superintendent Government Press, Madras.)

The Passing of the Great Race, or the Racial Basis of European History. By Madison Grant. $9 \times 5\frac{3}{4}$. 231 pp. Illustrated with numerous Maps and Plans. G. Bell and Sons, Ltd. 1917. 8s. 6d. net. (The Publishers.)

The Folk-Element in Hindu Culture: A Contribution to Socio-Religious Studies in Hindu Folk-Institutions. By Benoy Kuma Sarkar, M.A., assisted by H. K. Rakshit, B.A. $9\frac{3}{4} \times 5\frac{3}{4}$. 262 pp. Longmans & Co. 1917. 15s. net. (The Publishers.)

Modern Man and His Forerunners: A Short Study of the Human Species, Living and Extinct. By H. G. F. Spurrell, M.A., M.B., B.Ch. Oxon. $8\frac{1}{2} \times 5\frac{1}{2}$. 189 pp. 5 Plates and Map. G. Bell and Sons, Ltd. 7s. 6d. net. (The Publishers.)

Rudimentary Grammar of the Sema Naga Language, with Vocabulary. By J. H. Hutton, I.C.S. $10 \times 6\frac{3}{4}$. 95 pp. Assam Secretariat Printing Office. 1916. 1s. 4d. (The Author.)



TWO PITCAIRN ISLANDERS.

1, 2—FULL FACE AND PROFILE PHOTOGRAPHS OF CHARLES YOUNG.

3, 4— " " " EDWIN YOUNG.

ORIGINAL ARTICLES.

Pitcairn Island.

With Plate H.

Keith.

The Physical Characteristics of Two Pitcairn Islanders.

By

88*Arthur Keith, M.D., F.R.S.*

When Mr. and Mrs. Routledge finished their investigations on Easter Island in the autumn of 1915, they touched at Pitcairn Island on their homeward voyage, and there engaged two brothers, direct descendants of the "Bounty" Mutineers—Charles Young, aged 28, and Edwin Young, aged 25—to serve as hands on board their yacht "Mana." On reaching England in the summer of 1916, Mr. Routledge was good enough to send these two men to the Royal College of Surgeons, with the request that I should make for him a survey of their physical characteristics. The two men arrived on a sweltering summer day, and gave Dr. W. Colin Mackenzie and myself the most patient and intelligent co-operation as we made the observations recorded in this paper. So far as I can learn this is the first occasion on which a strict survey of the physical characteristics of Pitcairn Islanders has been made.

In 1790, as a result of a mutiny on H.M.S. "Bounty," there landed in the small isolated and uninhabited island of Pitcairn nine men of British origin, twelve women and six men from Tahiti, 1,300 miles distant. Internecine strife soon led to the death of the Tahitian men, and by about 1800 only one white man survived, John Adams,* who guarded the generation which sprang from the union of the mutineers with the Tahitian women until his death in 1829. Only five of the mutineers concern us in this report—Fletcher Christian, the leader; Edward Young, midshipman; Mills, Quintal, and McCoy (or McKay), members of the crew of the "Bounty."

We have no record of the physical characteristics of these men, but we may safely presume they represented a sample of the 18th century English. Had measurements been taken of their heads and bodies we may presume that these measurements would have approached the means of our modern standards. A maximum cranial length of about 186–190 mm., a maximum width of 141–143 mm., an auricular height of 114–116 mm., a facial width (bizygomatic) of 126–130 mm., a total facial length (naso-mental) of 115–120 mm., a stature of 1,700–1,730 mm. (5 feet 7–8 inches), and with hair, skin, and eyes showing the slighter degree of nigrescence possessed by the English.

As to the characteristics of the Tahitians who accompanied the mutineers, I had at my disposal the skeleton of one Tera Poo, a native of Tahiti, who died in the London Hospital in 1816, and therefore belonged to nearly the same generation as the Pitcairn settlers. This man fortunately possessed the prevailing cranial and bodily characteristics of the natives of Tahiti. The skull, as may be seen from Fig. 1, exhibits a peculiar kind of brachycephaly—a type which occurs in the Marquesas, Hawaii, and also among Indian tribes both of North and South America. These Tahitian men have skulls quite different in form from any English types; they are short, 174–180 mm.; they are also narrow, 136–142 mm.; they are high vaulted, having an auricular height relatively much greater than in English skulls. Their jaws are more prognathous, their faces rather wider and shorter. Their noses are much wider, and a marked feature is the shallowness of their upper jaw, as measured from the floor of the nose to the alveolar border at the incisor roots. As to their colour, Captain Cook, in his first voyage, describes the Tahitians as having "a fine clear olive, or what we call brunette complexion." Their hair is straight, stiff, and black, or very deep brown. There was thus launched on the Island of

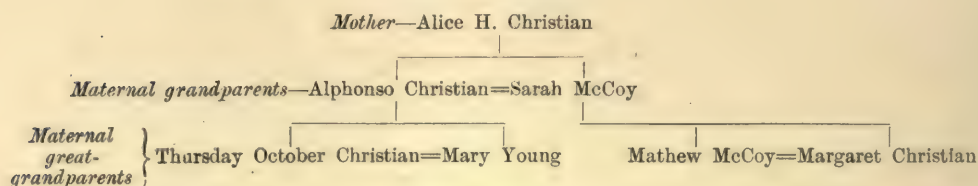
* See *Story of the "Bounty,"* by Rosalind Amelia Young, 3rd ed.

Pitcairn, in the year 1790, a very remarkable experiment, where members of two human races, contrasted in many points of structure, were isolated, and inter-bred.

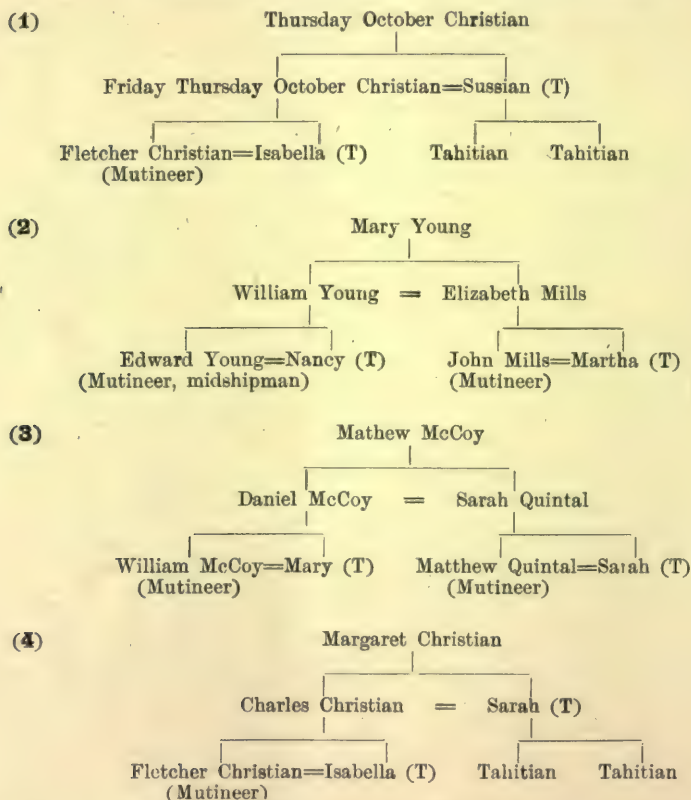
What is more wonderful is that we are able to trace the exact parentage of Charles and Edwin Young. After I had finished the notes which are here published, and had reached the conclusion that Tahitian had predominated over British physical characteristics—a result I did not expect, because of the great number of ships which began to call at Pitcairn in the middle of the 19th century — Mrs. Routledge obtained from Miss Beatrice Young, of Pitcairn Island, the accompanying genealogical record* of the two Youngs. I have had to dismember her table in order to fit it to the pages of this journal :—

ANCESTRY OF CHARLES AND EDWIN YOUNG.

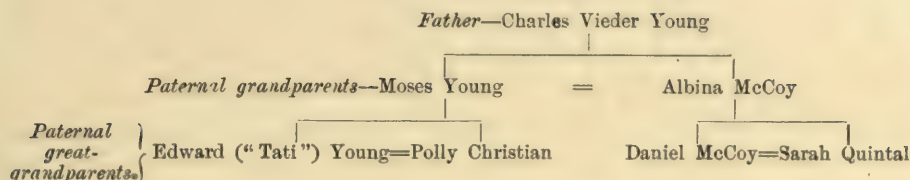
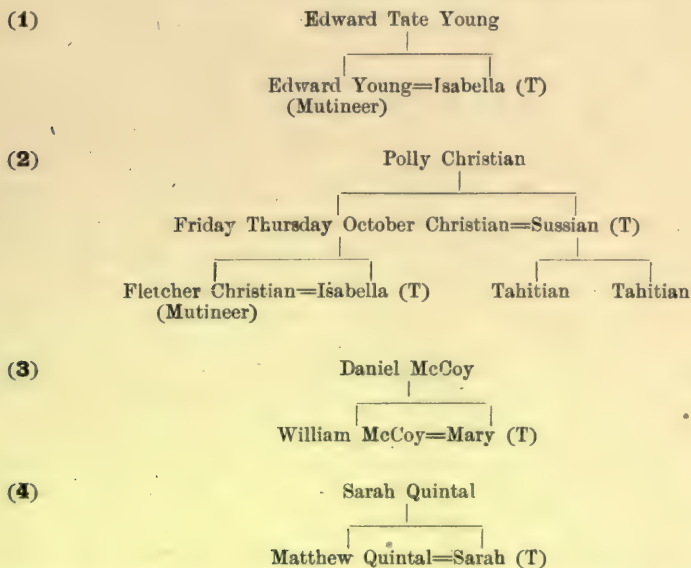
Maternal Ancestry.



Ancestry of Maternal Great Grandparents.



* "This one (i.e., genealogical table) now is all right. I got it out with the help of some of the oldest members of this island, and after working it out on a rough paper I read it to different ones to see that it was all right."—Letter, dated 10/12/16, Miss Beatrice Young to Mrs. Routledge.

Paternal Ancestry.*Ancestry of Paternal Great Grandparents.*

From the above table it will be seen that the subjects of this report belong to the sixth generation of the descendants of the "Bounty"—six generations in 127 years. If we suppose that each parent on the average hands on his or her characteristics to their progeny in an equal degree, we find that the ancestral composition of Charles and Edwin Young should be the following:—

$\frac{1}{3\frac{1}{2}}$ parts are British, $\frac{1}{3\frac{1}{2}}$ parts are Tahitian.

The British component is made up as follows:—

$\frac{1}{3\frac{1}{2}}$ Young, $\frac{1}{3\frac{1}{2}}$ Christian, $\frac{1}{3\frac{1}{2}}$ McCoy, $\frac{1}{3\frac{1}{2}}$ Quintal, $\frac{1}{3\frac{1}{2}}$ Mills.

Before proceeding to give an account of the examination carried out by Dr. Mackenzie and myself it is necessary to give some information bearing on the history and condition of the Pitcairn Islanders which I owe mainly to Sir Everard im Thurn and to Mr. Henry Lambert, of the Colonial Office. In 1831, when the Islanders numbered eighty-seven, they were induced to move to Tahiti, but in 1833 they returned to Pitcairn. In 1856 they were again induced to move—to Norfolk Island—but from 1859–64 a number of the original Islanders again returned, mostly Youngs, McCoy's, and Christians, and these form the basis of the present population, numbering 163 in 1916. In 1905 there were seventy-seven males to ninety-two females.* Towards the close of last century, when Mr. Joseph Chamberlain was Colonial Secretary, the Pitcairn Islanders were visited, and reported on, by various commanders of H.M. Navy and British Commissioners. All agree that the Pitcairn men "are strong and active; the women the same, and both are well developed" (Captain H. H.

* These facts are chiefly drawn from Reports and correspondence relating to the condition of the Pitcairn Islanders issued by the Colonial Office, 1899–1905.

Dyke, H.M.S. "Comus," 1897). Rear-Admiral H. Bury Palliser reported that "there was degeneration from inter-marriage," but it is clear that this statement referred to mental rather than to physical characteristics. "An American missionary "assured me," wrote Captain Dyke, "that the want of intellect among the young "was simply appalling." "They are not an ingenious people," reported Captain Doughty (1897); "the children speak a jargon at school which is hard to understand." Mr. Commissioner Hamilton Hunter reports that "they are weak in intellect." The Commander of H.M.S. "Royalist" reports (1898), "They look healthy and vigorous, "but the same cannot be claimed for them mentally." He also reports that they "have adopted a patois employed in conversation amongst themselves, although most "adults can speak English very well." He adds further, "there are persons of ability "but a few appear to be lacking in intelligence." The Commander of H.M.S. "Wild Swan" reported in 1901 that there was a "tendency to make use of a "language of their own." Another condition is also frequently noted—an early loss of the upper incisor teeth: "There is a noticeable loss of front teeth," writes Captain Dyke (1897), and adds: "To be correct, the teeth are not lost but broken off." Commissioner Hunter remarks that the women are "disfigured by the loss of "front teeth, seen even in the young." "The front teeth of most of them are bad," says the Commander of the "Royalist." The Commander of the "Icarus" noted "the early loss of the front teeth in the upper jaw"—but some had perfect sets of teeth.

We note that there is a consensus of opinion among those who have visited the island in an official capacity that (1) the Islanders have healthy, active, well-formed bodies and are capable seamen; (2) that there is—in a proportion at least—a lack of mental ability; (3) there is a tendency to the formation of a peculiar form—a native—speech; (4) there is a curious tendency to lose the upper front teeth.

Charles and Edwin Young are robust, active, well-formed men of medium stature. Mr. and Mrs. Routledge formed a high opinion of their seamanship; they found them capable, trustworthy, and intelligent. They spoke English quietly, deliberately, and exactly, and yet it seemed to me they spoke it as if it were to them an acquired tongue. They had a certain timbre in their voices which struck me as neither British nor European. Speaking of the Tahitians of 1769, Captain Cook said: "Their motions are easy and graceful, but *not vigorous*; their deportment is generous and open, and their behaviour is affable and generous." That description is wholly and truly applicable to the two Youngs. They had an air of easy composure under all circumstances—characteristics which seem to me to be Tahitian rather than European. I was struck with their negative rather than positive mental qualities, and formed the opinion that their powers of apprehension were limited. They also illustrated the statements made as regards loss of upper incisor teeth. Charles, although only twenty-eight, retained only nine of his thirty-two permanent teeth. In the upper jaw he had both canines and three of his molars; in the lower jaw two incisors, one canine, and one molar. In the younger brother, Edwin, ten teeth were retained—two in the upper jaw (both of them molars), eight in the lower jaw (four incisors, two canines, one premolar, and one molar). It was difficult to ascertain how and why they had lost their teeth, but on returning to the "Mana" Charles informed Mrs. Routledge that about ten years ago his teeth "began to go bad"; "they were good and sound, but caused pain, and so had them pulled out." He maintained that "most people on the island had good teeth and used tooth brushes. They also had two dozen pairs of tooth forceps." Edwin said that in 1910 he pulled out six teeth "because they began to pain." All six, he said, were quite sound. In 1913 he pulled out six more because they gave pain. The latter six had, he said, "become rotten." Mr. Christian, the magistrate, did all the extrac-

tions on the island. Mrs. Routledge is certain that any reluctance they manifested to explain the loss of their teeth was due to certain negotiations they had opened up with a dentist at Southampton. The early loss of sound teeth suggests that the operation may have an ethical as well as a medical explanation.

If I had casually met the Youngs in the street and known nothing of their history, I should have set them down, from a survey of their features and complexion, as natives of the Levant, or perhaps crosses between a European and a native of India. Their cranial and facial characters are well portrayed in Plate H.

With this rather lengthy introduction, I shall now proceed to compare their physical characteristics with British and Tahitian types. Tables of measurements by Dr. Mackenzie and myself are appended to this article. As the complexion of the skin of the Pitcairn Islanders agrees with that given by Captain Cook of the Tahitians, and differs from any tint which occurs in England, I infer that the Islanders have inherited entirely the maternal degree of nigrescence.

I, unconsciously, repeated in my notes on the Youngs almost the same terms as were used by Captain Cook to describe the Tahitian skin, "delicately smooth and agreeably soft." When their eyes are examined carefully it is seen that the iris surrounding the pupil is laden with a brown, almost a chestnut, pigment; the circumference of the iris is also pigmented, but between the pupillary ring of brown and the pigmented circumference the iris is of a clear green, the green zone being less extensive in the elder than in the younger brother. The white of the eye is slightly grey, but shows no collections of pigment such as are seen in negroid races. It is when one runs the fingers through their hair that a Tahitian rather than a European feature is noted. The hair of the elder is black, stiff, and stubbly, almost Mongolian in texture. In the younger the hair has a brownish tinge; he declares that at one time it was almost red, and is softer than that of his elder brother. In both of them the hair on the temples, which has been allowed to grow somewhat longer than on the back and crown of the head, was inclined to wave at the points, but in no manner could it be described as frizzy; where it was short it was straight and stiff. They had abundant black hair in their armpits and on their pubes; scattered hairs also occurred on the chest and abdomen, the elder brother being the more hairy of the two in this respect. As regards distribution of body hair they did not differ from the ordinary run of Europeans. The hair inclines to grow low both on their foreheads, which are somewhat receding, and on the nape of the neck, particularly in Charles, the elder.

The occipital region of their heads, particularly in the elder brother, Charles, shows a peculiar kind of flattening, which can be most truly described as Tahitian.

As regards stature and proportion of body there is apparently no great difference between the average Briton and Tahitian. Tera Poo's skeleton has a stature of 1,705 mm., corresponding to 1,725 mm. in life. He must have stood about 5 feet 8 inches in life, near the British average. The standing height of the elder brother, Charles, is 1,690 mm. (5 feet 6½ inches), Edwin, the younger, 1,724 mm.—practically the same height as Tera Poo. They are men rather above medium height. Their sitting height—length of body from the crown of the head to the level of the ischial tuberosities—is 893 mm. in the elder, 884 in the younger. The shorter man has the longer trunk; the younger brother's greater height depends on his longer lower limbs. In the elder brother the "head-trunk" length represents 52.8 per cent. of the total stature; in the younger 51.3 per cent. The length of the lower limbs, measured from the apical point of the great trochanter to the sole of the foot, was 877 mm. in the elder and 925 mm. in the younger brother, these amounts being respectively 51 per cent. and 53 per cent. of the standing height. Both have relatively long bodies. The total length of their upper extremities was estimated in

the following manner: The total span of the elder brother is 1,684 mm., of the younger 1,763 mm.; in the first case the span is 6 mm. less than the standing height, in the second it is 39 mm. more. The younger brother has absolutely and relatively the longer limbs. If we deduct from the span the distance between the outer ends of the clavicles we obtain the sum of the combined length of the two arms. In the elder, the biclavicular width is 300 mm., in the younger 295 mm.; in the elder the combined arm length is $1,684 - 300 = 1,384$ mm.; the arm length $\frac{1,384}{2} = 692$; in the younger 734 mm. In the elder the length of the upper limb is rather less than 80 per cent. of the lower; in the younger it is 82 per cent. There is no exceptional feature in these figures, nothing which helps us to determine a preponderance of either Polynesian or European elements in the two Youngs. Nor do the relative proportions of the various segments of the limbs help us. In the following table are given the length of the various segments of the upper and lower limbs:—

	Femoral Length.	Tibial Length.	Humeral Length.	Radial Length.
Charles - - -	400 mm.	363 mm.	282 mm.	250 mm.
Edwin - - -	432 mm.	372 mm.	312 mm.	265 mm.

In both the tibia is relatively long compared with the femur; in Charles it is exceptionally long (90 per cent.), in Edwin 86 per cent. The radial (forearm length) represents 88 per cent. of the humeral length in the elder and 85 per cent. in the younger brother. It will be noted that the tibial and radial lengths in the elder brother are remarkably great.

While the measurements and proportions of the body give us little or no help in deciding whether the British or Polynesian characteristics predominate in the two brothers, it is otherwise as regards the shape of their heads; in head form they are preponderantly Polynesian. We have seen that they are Polynesian as regards their olive skins and stiff dark hair. In the proportion of their limbs, Tera Poo, the Tahitian, and the Youngs are not unlike. The outstanding feature of the Tahitian head is the flattened and high occiput (*see* Fig. 1). The Pitcairn Islanders have the Tahitian occiput and also the Tahitian dimensions and proportions of head. In Charles, the elder, the maximum length of the head is 177 mm., its maximum width 144 mm. To obtain the actual length of the skull we must deduct, according to Dr. Anderson, 8.6 mm. from the length and 10.5 mm. from the width, giving a cranium of remarkably small dimensions—only 168.4 mm. long and 133.5 mm. wide—with a cephalic index of a fraction over 79. In Edwin the head length is 179 mm., the width 144 mm.; making the necessary deductions we obtain a cranial length of 170.4 mm., a cranial width of 133.5 mm., a cephalic index of a fraction over 78. The corresponding measurements of the Tahitian's skull are: length, 176 mm.; width, 137 mm.; an index of 77.8. In actual and relative measurements the Pitcairn Islanders have the cranial characters of the Tahitian—not at all those of the average Englishman. As regards the height of the cranial vault, as estimated by the height of the vault above the auditory meatus, there is also a Tahitian resemblance. In Charles the auricular height is 124 mm., in Edwin 115 mm.; 7.2 mm. has to be deducted from that amount to obtain the cranial measurement (Anderson); the corrected auricular height in Charles is thus 116.8 mm., in Edwin 107.8 mm. In the Tahitian skull the length and width dimensions are greater than in the Pitcairn Islanders; so is the auricular height, viz., 122 mm. With these three measurements—length, width, and auricular height—we may apply the Lee-Pearson formula and obtain an estimate of the cranial capacity. In Charles the cranial

capacity is calculated to be 1,300 cc., in Edwin 1,250 cc. In the Tahitian we know from direct measurement that it was greater than in either, viz., 1,400 cc. When it is remembered that the mean capacity for Englishmen is about 1,490 cc., and for Polynesians about 1,470 cc., the relatively small cranial capacity of these two Pitcairn Islanders will be appreciated as a matter worthy of attention. They fall far short of the Polynesian average. The actual size of their brain is probably under, not over the estimate, for their foreheads are receding, and the measurements are likely to give an over- rather than an under-estimate of brain size. Now, although we cannot say that there is, in every case, a direct relationship between size of brain and degree of intelligence, yet there is a general correlationship between these two factors. Visitor after visitor to Pitcairn has remarked on the lack of intelligence exhibited by a certain proportion of the Islanders. If the two men brought home by Mr. Routledge are representative of the Pitcairn population, then

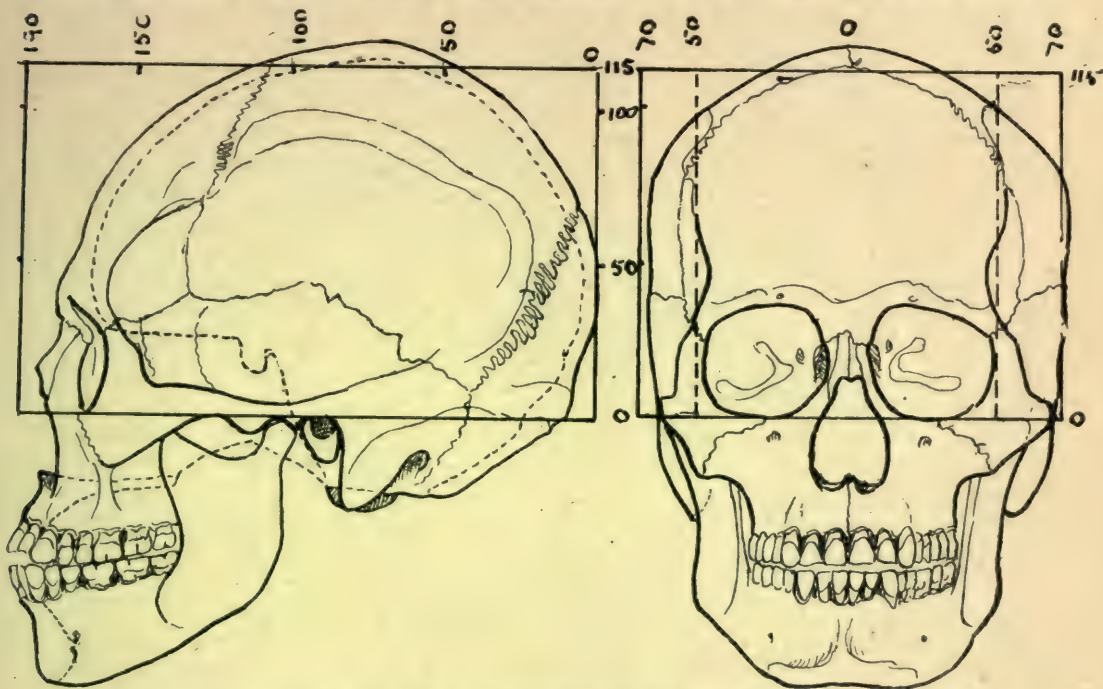


FIG. 1.—PROFILE AND FULL-FACE DRAWINGS OF THE SKULL OF THE TAHITIAN, TERA POO.

there is a sufficient explanation for some of the observations made by visitors to the islands.

Is their small-sized brains the result of interbreeding? We know nothing of the size of brain or degree of intelligence possessed by the mutineers and Tahitians who became isolated from the rest of the world in 1790. We know that most of the mutineers were dissolute men, but we have no reason to suppose that they lacked initiative. We cannot reasonably adopt the popular belief that the reduction in brain-size is due to inbreeding, for, as I have already indicated, there are at least five British strains, and a probably greater number of Tahitian strains are conjoined in the constitution of the two brothers Young. Nor have we any evidence which leads us to believe that there was any small-headed mutineer-type which has become dominant in these men. The only hypothesis that seems worth inquiring into is one which supposes the size of the brain to be transmitted through the female rather than through the male line, but in this case we have to suppose that it is

the female rather than the male Tahitian cranial capacity that has been inherited by the two brothers. Apparently mental ability is exhibited by the female side of the Young family. That is in keeping with the hypothesis I put forward.

How near the cranial outline of the elder brother Charles agrees with the peculiar Tahitian cranial type may be seen from Fig. 2. In that figure I have used a tracing of the profile of the head of Charles and placed within it, on a slightly diminished scale, the profile of the cranium of Tera Poo. There cannot be a doubt that they possess the same peculiar form. In the case of the younger brother this is true to a less extent; in him there are two English features—a lowness of vault and a slight tendency to an occipital prominence. In the case of the facial skeleton the cases are reversed—Charles is the more English, Edwin the more Tahitian.

In shape of head, as in colour of skin, the Youngs are Tahitian; in size of brain they fall far below both the Polynesian and British average. We now propose

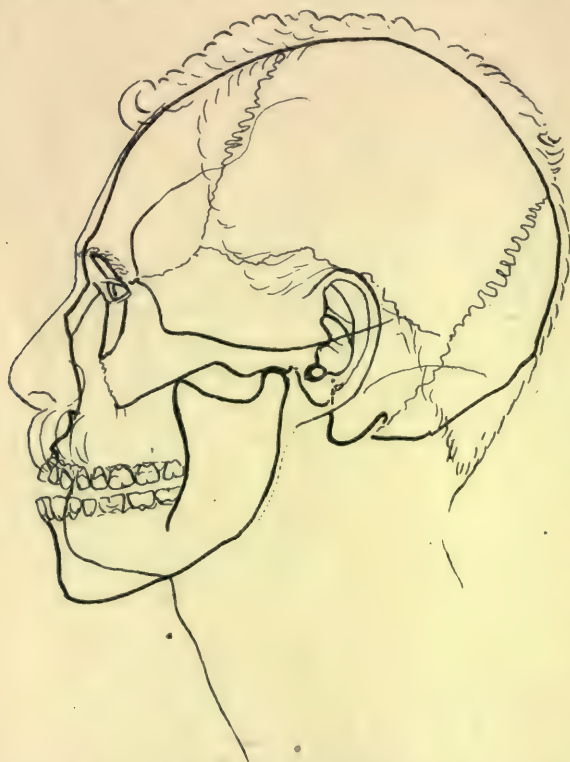


FIG. 2.—OUTLINE OF THE PROFILE OF CHARLES YOUNG'S HEAD, WITH A PROFILE OF THE CRANIUM OF THE TAHITIAN, TERA POO, PLACED WITHIN IT.

to examine their facial features, in order to ascertain which stock they favour. Their faces are remarkably short; to some extent this must be regarded as due to the premature loss of teeth, with consequent absorption of their sockets. The upper face length, measured from nasion or root of the nose to the point where the roots of the upper central incisors were fixed, the alveolar point, is 58 mm. in Charles, 61 in Edwin—a Polynesian rather than a British measurement. In the Tahitian skull, that of a young man with a sound and complete set of teeth, the upper face measures 68 mm. The total length of the face, from nasion to lower border of chin, is 102 mm. in Charles, 99 in Edwin; the total length of the face is also abnormally low. In the Tahitian skull the total face length is 120 mm. On the other hand, the face width—bizygomatic width—is considerable, 129 mm. in Charles, 136 mm. in Edwin. In Englishmen the width of the face—bizygomatic diameter—has a mean of about 130 mm. In the Tahitian skull it is 125 mm. In order to compare the measurements made on the Youngs, a certain amount has to be deducted on account of the soft parts covering the zygomatic arches. If we allow 8 mm. for soft parts, the width of the bony face in Charles may be estimated as 121 mm., in Edwin as 128 mm. The faces are not absolutely wide, only relatively so if we take into consideration their short length. In size and shape Charles' nose is almost European; in Edwin there is a fullness in the alar regions of the nose that one often sees in Polynesians, but rarely encounters in Europeans.

The length of the nose, measured from the nasion to the lower border of the nasal apertures, is 48 mm. in Charles, 51 mm. in Edwin, 54 mm. in the Tahitian skull. The width of the nose at the alæ is 28 mm. in the first, 35 mm. in the second; Charles has inherited the European, Edwin the Tahitian nasal shape and dimensions. Indeed, in his wide face and prominent cheek bones there can be no doubt that Edwin retains the traits of his maternal ancestor, Charles those of his paternal ancestor. The Tahitian nose is wider than the European. In the Tahitian skull the anterior nares measure 27 mm. in width—equal to an alar width of 32 mm. In the elder, Charles, the anterior nares are shaped and situated as in Europeans. They are elliptical openings 14 mm. in their long axis and 8 mm. in their transverse and shorter diameter. They are situated on each side of the nasal septum, approximately parallel to each other. In the younger, Edwin, they are shaped as in negroid races, the apertures diverging as they retreat towards the bases of the alæ. The long axis of each aperture measured 18 mm., the narrower diameter being 8 mm., as in the elder brother. There are other features of their faces which I think desirable to place on record. In both the eyebrow ridges are prominently developed; so is the glabellar region. In Charles the width of the forehead—measured between the outer ends of the supra-orbital ridge, or malar processes of the frontal—is 99 mm., in Edwin 111 mm., in T.S. (Tahitian skull R.C.S.) 103 mm.; the minimum width of the forehead in the first is 95 mm., 99 mm. in the second, 93 mm. in the Tahitian skull. All of those measurements are in proportion as regards the size of head possessed by the Islanders, but compared with heads of average dimensions are absolutely small. A narrow forehead is a Tahitian rather than a European feature.

There is a remarkable feature of the Tahitian skull which I suspect to be a racial characteristic, namely, the narrowness of the inter-orbital septum, which, of course, forms the upper part of the nasal chamber. In the Tahitian skull the distance between the lachrymal crests is only 15 mm.; the mean distance in the English male is 20 mm.; in the elder Young the distance is 18 mm., in the younger 19 mm.; both take after the Tahitian rather than the British in this respect.

As regards the chin, the Tahitian is receding. In neither of the Youngs is this the case, but there is no doubt that the removal of teeth will bring a chin of medium development into prominence. Another feature which can be measured with some degree of accuracy is the lower breadth of the face—measured between the angles of the mandible—the bigonial width. In modern English skulls the mean bigonial width is a fraction over 99 mm. When covered by soft parts the same width is about 108 mm., allowing 9 mm. for the increase caused by the flesh. In Charles the bigonial width is 101 mm., in Edwin 100 mm.; representing a bony width of 92 to 93 mm. In the Tahitian skull the bigonial width is 98 mm. Thus in the absolute dimensions of the lower width of the face, as in cranial capacity, the two Pitcairn Islanders fall below the mean of both British and Tahitian.

The ears of the two brothers are remarkably alike, not only in dimensions but also in detail of shape. In both the lobule is but slightly developed, and is completely adherent to the cheek. In both the length of the ear, from upper border to lower edge of lobule, is 60 mm. Its width, measured from the base of the notch at the upper border of the anti-tragus to the posterior border, is 28 mm. The border of the helix is inrolled to the extent of 5 mm. There is no trace of a Darwin's tubercle. There is no distinctive feature here, except that such an adhesion of the lobule is less common in England than in Polynesia.

I now return to certain features of the physical development of the body. In European and Polynesian alike there is a robust, muscular and skeletal development. The two brothers have a splendid physique; their bones are well formed and

capable of being dexterously and strenuously applied. The circumference of the arm at the biceps in Charles is 270 mm.; in Edwin 242 mm. In the lower limb each has a circumference in the middle of the thigh of 450 mm.; round the calf Charles measures 327 mm., Edwin 324 mm. They have the muscular development of athletes. Across their shoulders, from one acromion process to the other, Charles measured 408 mm., Edwin 390 mm.—wide-shouldered men. At the level of the sterno-ensiform junction, Charles' chest had a back-to-front diameter of 159 mm., a side-to-side diameter of 259 mm.—wide and flat-chested. In Edwin the corresponding diameters measured 180 mm. and 243 mm.; he was more round-chested. As in his facial features, so in his thoracic conformation, Charles favoured the European type, Edwin the Polynesian. But in both there could be no thought of physical degeneration; in chest and in muscle they were splendidly developed.

I also obtained satisfactory hand and foot prints. Their feet at once reminded me of imprints I obtained of Spanish labourers who go barefoot or in light sandals—large feet, very wide across the sole, under the heads of the metacarpal bones. In both men the great toe continues forward in a line with the inner border of the foot; a line drawn along the inner side of the imprint, so as to touch the inner margin of the heel and the pad under the head of first metatarsal bone, runs parallel with the axis of the great toe. The length of the foot imprint from the hinder margin of the heel impression to the impression of the longest toe—the second—is 235 mm. in Charles, 245 mm. in Edwin. The width of the sole, across the heads of the metatarsal bones, is 98 mm. in Charles and 101 mm. in Edwin. Edwin has the bigger limbs and the bigger feet.

While their feet at once strike the observer as being large, this is not the case as regards their hands. I made the following measurements, not from the hands themselves, but from the imprints. The middle finger is the longest; from the fold at the base of the ball of the thumb—fold on the wrist side of the thenar eminence to the distal margin of the middle finger impression—measured 166 mm. in Charles, 185 mm. in Edwin, who has the bigger hands as well as bigger feet, but has the shorter trunk-length. In Charles the second and fourth fingers measured the same, 158 mm.; in Edwin the fourth was longer than the second, 175 mm. and 170 mm. As measured in the manner already stated, the thumb was shorter than the little finger; in Charles the measurements of thumb and little finger were 137 mm. and 112 mm.; in Edwin 150 mm. and 125 mm. In both the palm imprint was 82 mm. wide.

In both the prevalent papillary pattern on the fingers was of an uncommon type, and I suspect is Tahitian rather than European. Taking the pattern on the finger imprints of Charles first, one notes on the thumb a loop, with a tendency for the inner or nuclear lines to be arranged in a parallel series and shut off at the base of the loop. The pattern in the second, third, and fourth digits are also of the loop type, while in the fifth digit the lines form concentric ellipses, the innermost tending to be parallel and to assume an arrangement or type which occurs in anthropoids. The type described in Charles' little finger occurs in the ring and little finger of Edwin; in his middle and forefinger the pattern assumes a whorl or spiral arrangement. On the balls of the toes the pattern cannot be noted, except in the case of the great toe, where they assume the open triangular form.

To sum up, I regard the two Pitcairn Islanders as decidedly more Tahitian than European in their physical characteristics. In facial features Charles is European, Edwin is not, yet in actual shape of head the case is reversed—Charles has the typical Tahitian head, Edwin rather the European. In colouring both are Tahitian rather than European; in texture of hair they are Tahitian rather than European. In size of brain they are typical of neither British nor Tahitian, but incline rather

to the second than to the first. But there can be no question of physical degeneration; they are both splendidly developed men.

LIST OF MEASUREMENTS.

						CHARLES.	EDWIN.
						Mm.	Mm.
Standing height	-	-	-	-	-	1,690	1,724
Sitting height	-	-	-	-	-	893	884
Span	-	-	-	-	-	1,684	1,763
Bi-acromial width	-	-	-	-	-	408	390
Length of upper limb	-	-	-	-	-	692	760
Length of lower limb	-	-	-	-	-	877	925
Weight	-	-	-	-	-	56.3 kilos. (124 lbs.)	55.4 kilos. (122 lbs.)
<i>Head Measurements:</i>						Mm.	Mm.
Maximum length	-	-	-	-	-	177 (169)*	179 (171)
Maximum width	-	-	-	-	-	144 (134)	144 (134)
Auricular height	-	-	-	-	-	124 (117)	115 (108)
Maximum mastoid diameter	-	-	-	-	-	120	124
Minimum frontal	-	-	-	-	-	95 (87)	—
Bi-stephanic diameter	-	-	-	-	-	130 (120)	135 (125)
<i>Face Measurements:</i>							
Nasio-alveolar length	-	-	-	-	-	58	61
Nasio-mental	-	-	-	-	-	102	99
Nose, length	-	-	-	-	-	48	51
Nose, width	-	-	-	-	-	28	35
Supra-orbital width	-	-	-	-	-	99	111
Width between lach. crests	-	-	-	-	-	18	19
Interocular width	-	-	-	-	-	28	30
Bizygomatic diameter	-	-	-	-	-	129 (121)	136 (128)
Bi-malo-maxillary width	-	-	-	-	-	85	87
Bicondyloid width	-	-	-	-	-	117	130
Bigonial width	-	-	-	-	-	101	100
<i>Upper Extremity:</i>							
Humeral length	-	-	-	-	-	282	312
Radial length	-	-	-	-	-	250	265
Hand, length	-	-	-	-	-	166	185
Circumference, upper arm	-	-	-	-	-	270	242
<i>Measurements of Lower Limbs:</i>							
Femoral length	-	-	-	-	-	400	432
Tibial length	-	-	-	-	-	363	372
Length of foot	-	-	-	-	-	235	245
Circumference of thigh	-	-	-	-	-	450	450
Circumference of calf	-	-	-	-	-	327	324
<i>Thorax:</i>							
At level of 4th cost. cart. A.P. diameter	-	-	-	-	-	159	180
At level of 4th cost. cart. transverse diameter	-	-	-	-	-	259	243
External ear.—Vertical diameter	-	-	-	-	-	60	60
External ear.—Width at antitragus	-	-	-	-	-	28	28

A. KEITH.

* Measurements in brackets represent estimated dimensions for skull. I have used a slight modification of Dr. Anderson's data—subtracting 8 mm. from length, 10 mm. from width, and 7 mm. from auricular height—to obtain the "skull" from the "head" measurements.

Anthropology.

Jones.

The Arboreal Descent of Man. By F. W. Jones.

89

In concluding his review of *Arboreal Man* (MAN, 1917, 71), Professor Parsons expresses the hope that someone "will take up the case for the defence"—the defence, that is, of the thesis that man has been evolved from a pronograde quadrupedal mammal, in opposition to the teaching that man's ancestry is to be looked for along the lines of an arboreal stock which has retained adaptations to an arboreal life from practically the dawn period of the mammals. If this case for the defence is to be conducted to its best advantage, it is to Professor Parsons that one would wish to see the brief offered, for, as he says, he is "convinced of the pronograde ancestry of man." But if he undertakes this task he must give the jury better reasons for his convictions than those he has provided in his review, or the verdict will surely go against his client. The "few instances of many which," in the opinion of Professor Parsons, "can alone be explained by regarding Man as continually harking back to a pronograde condition" cannot be permitted to pass unchallenged in the pages of the journal in which they appeared in print.

The first of these points is presented with some subtlety, and must appear very convincing if examined with that amount of care usually devoted to the analysis of a writer's meaning. The argument, as urged by Professor Parsons, is as follows:—
(a) The radius becomes the important bone of the forearm in pronograde mammals.
(b) Its head occupies the greater part of the lower end of the humerus, and the ulna occupies only an inconsiderable humeral articular area. (c) In orthograde and brachiating mammals the radial head is small and has a correspondingly small humeral articulation. (d) In the human foetus "the epiphysis for the capitellum still stretches across and forms quite half of the trochlear surface for the ulna." I think that from these statements the average reader would assume that (e) the articular surface for the radial head, and probably the head itself, were relatively larger in the human foetus than they are in the adult.

A question concludes the evidence on this point—"Is not this a persistence in the young condition of a pronograde stage in which the radial surface of the humerus was much larger and more important than it is in the orthograde or brachiating adult?" There would not appear to be much doubt as to the answer expected; and yet the one which I believe to be correct is not that looked for by Professor Parsons.

First, there is the inherent improbability of a forearm ever passing from a primitive type into a highly specialised type (such as is that of a pronograde), and then back again into a condition which resembles, in the most minute details, the previous primitive phase. Such a sequence of events is quite contrary to the laws of change determined by palæontologists; and even could Professor Parsons establish his case for the radius, what of the host of other features of the human body which show a similar strangely primitive condition? Have they all been altered in their passage through the pronograde stage, and then harmoniously reverted to an earlier type? But can even the case of the radius be made out? The facts are as follows:—(a) Ossification of the cartilagenous articular lower end of the humerus starts upon the radial side and spreads towards the ulnar side. (b) Much of the area with which the ulna articulates is ossified from this centre. But (c) at no developmental stage of man does the radius occupy more of the articular extremity of the humerus than it does in the fully ossified bone. (d) There is no stage in which the "capitellum" is relatively larger or the "trochlear surface for the ulna" relatively smaller than in the adult. (e) Even before ossification has started at all the cartilagenous radius and ulna articulate with the cartilagenous humerus in their

proportionate adult areas. (f) There is no hint whatever, at any phase of development, of a humeral extremity of the radius which "stretches across the greater part" of the lower articular end of the humerus"—no suggestion of any harking back to a former pronograde stage.

There is another question which Professor Parsons might have propounded concerning the radius and its humeral articulation. Why does the radius become such an important bone in pronogrades, and why, too, is it so important in orthograde and brachiating mammals? I am sure he will find the answer to this question in considering the influences of the arboreal habit. I will not recapitulate the evidence concerning the specialisation of the radial (and tibial) digit brought about by tree climbing; but I would remind him that I especially pointed out in the volume in question that it was the side of the limb next to the middle line of the animal which was selected for dominance in arboreal activities. I would remind Professor Parsons that this radial specialisation is as old as the mammals, for it is well known to palæontologists that the mammalian fauna of Eocene days possessed opposable radial digits, and dependence upon the bones of the inner side of the limbs.

This was the already existing specialisation when the climbing mammals of the Eocene became more thoroughly pronograde quadrupeds. It is the importance of the radial side of the limb which leads to ossification starting upon the radial side of the humeral articular area, but this importance was begot of the habits of the Cretaceous climbers, and not of any supposed harking back to the condition seen in the horse.

The other points raised by Professor Parsons may be dismissed more briefly. I have insisted throughout that man, and more especially the forearm and hand of man, exhibit singularly primitive mammalian features. That is my point, and Professor Parsons greatly strengthens my position when he cites a muscle such as the flexor profundus digitorum which shows "atavistic variations in Man only to be" found in such generalised pronograde types as *Erinaceus* and *Gymnura* among the "Insectivora." *Homo* shows these resemblances in forearm musculature to *Erinaceus* and *Gymnura* because they are "generalised," but not because they are "pronograde."

The other muscle to which Professor Parsons draws attention is the serratus magnus, and his arguments concerning it are so exactly along the lines which I have stigmatised, in *Arboreal Man*, as fallacious that I am willing to leave them to the judgment of any lay person. This muscle is, as he says, small in Amphibians and reptiles, but large, because function demands it, in pronograde mammals. In man it is less extensive than in the typical pronograde mammals, but the assumption that therefore "it is partly disappearing in Man" because man has ceased to be a pronograde is, I believe, quite unwarranted. The last anatomical evidence brought forward by Professor Parsons concerns the middle gleno-humeral ligament of man; that point I am prepared to leave in the hands of anatomists generally. Any view as to the phylogeny of man which needs to fall back for support on evidence derived from the so-called middle gleno-humeral ligament as seen in the shoulder joint of man fails to retain my confidence.

I trust that Professor Parsons may be persuaded seriously to undertake the defence of the thesis of the pronograde origin of man, and that he will do it solely from the great wealth of anatomical knowledge which he possesses; refraining from making any attempt to represent that one who holds very different views stands revealed in clever evasions because he has tried to produce an honest simplicity in his diagrams.

F. WOOD JONES.

West Africa.

Migeod.

Antiquity of Man in West Africa. By F. W. H. Migeod.

90

In my article published in MAN, 1916, 36, on a presumed palæolith from Ashanti, I referred to some ancient pottery I had unearthed at Ejura.

I have recently made a further discovery at Ejura (60 miles north-east from Kumasi) entirely confirming, I consider, the antiquity of what I had previously found. The site is about three-quarters of a mile from the other and on the same contour. A big pit had been newly dug behind the Rest House for rubbish, and on examining it I noticed on one side the outline of an earthenware pot. Its capacity must have been about 2 gallons. The lip is nearly 3 inches wide, and the material yellowish and rather thin. The thinness may, however, be due to disintegration. Its outline is roughly as here indicated, the dotted line representing its presumed continuation when still unbroken. The rock in which it is embedded is red clay.

There are 9 inches of vegetable mould on top, and the fragment lies about 18 inches below the upper surface of the clay. A couple of feet away from it, and on the same level, lies a piece of a black pot about 2 inches long.

The clay is free from stones and absolutely undisturbed. The ground slopes gently towards a stream about half-a-mile away at a grade of about 1 in 40-50, and the rise behind is scarcely worth considering. The vegetation is grass with open-country species of timber, but there are patches and tongues of the usual "dense" forest close by and along the stream.

It would seem that the clay must have been in process of deposition whilst man was already living in those parts, and that the broken pottery had fallen in during deposit. The clay bed extends all the way to the coast, some 200 miles off, and rests apparently everywhere upon sandstone. The great ridge known as the Mampong Scarp, 30 miles north of Kumasi, would seem to be a recent upheaval, as the clay bed lies on the top as well as below it. The upheaval would, therefore, seem to have taken place after the country became inhabited.

F. W. H. MIGEOD.



REVIEWS.

India: Religions, Ethnology.

Ramaprasad Chanda.

The Indo-Aryan Races: A Study of the Origin of Indo-Aryan People and Institutions. Part I. By Ramaprasad Chanda, B.A. Pp. 274. Rajshahi, Varendra Research Society, 1916. Price 7s. 6d.

91

The Varendra Research Society, established to investigate the religions, ethnology, and folklore of the new Provinces, Bihar and Orissa, has already issued some Sanskrit texts, and now opens its English series of publications with the present volume, which forms the first part of the work. The intention of the book is, we are told, to supply a monograph on the origin of the Bengali people. This question, however, is dealt with only incidentally in the present volume, which consists of a series of essays on "The Aryas and Anaryas of Vedic India," "Indo-Aryans of the Outer Countries," "Race and Cult—Vaishnavism," "Race and Cult—Saktism," "Race and Caste—the Brahmans of the Outer Countries," "Indo-Aryans and Iranians." The scheme is thus sufficiently ambitious, and a study of the book suggests that, instead of discussing, necessarily with insufficient detail, the leading problems of Indian religions and ethnology, the author would have attained greater success if he had devoted himself to the special question which it was the object of the Society to investigate.

The path which he has followed is already well trodden, and practically all the information in early Hindu literature which is of value for the purpose has already

been collected and translated in publications like Dr. J. Muir's *Original Sanskrit Texts* and in the *Vedic Index* of Professor Macdonell and Keith. At the same time, the author shows that something remains to be collected in the byways of Sanskrit literature. He has read widely, and some of his theories and comments, presented in a scholarly and modest way, deserve consideration. Thus, he thinks it unreasonable to suppose that the Sudras were recruited solely from the aborigines or Aryans of the north, and professes to derive them from the Nishāda or forest tribes.

Contesting the current view that the Yādavas were a Panjāb tribe, he finds their home in Saurāshtra or Kāthiawār, and, without producing much new evidence, connects them with the Mutanmi, who worshipped gods with Vedic names, Mitra, Varuna, and Indra. In support of their western origin he refers to a Babylonian seal now in the Nāgpur Museum. But its provenance is uncertain, and it may have drifted to India in the course of trade. He rightly rejects Risley's theory that the round-headed strain among the Mahrattas was due to an Indo-Seythian migration into the Deccan, and he protests against the suggestion of the same writer that this similar strain among the Bengalis is due to Mongoloid influence. He seems inclined to find these "Aryan" roundheads among Risley's "Turko-Iranians." He doubts the existence of a Christian element in the Krishna Saga, and prefers to connect it with the Perseus legend. In the same connection he shows, apparently with success, that the view of Krishna being a vegetation spirit is due to a misunderstanding of a passage in Patanjali. The essays on religion present little novelty, but he protests against the supposition that there is little sectarianism in modern Hinduism, on the ground that persons professing an elective form of belief have never undergone the rite of initiation by a Guru. The essay on the Iranians also follows well-known authorities. The work as a whole is interesting, and students of early Hindu and Ethnology will look forward to its completion. It may be hoped that the second part will be provided with an index. In the forthcoming portion of the work the author may be advised to devote more space to the ample materials in his Province, a sphere to which the new society will do well to confine its investigations.

W. CROOKE.

Africa : West.

Thomas.

Anthropological Report on Sierra Leone. By Northcote W. Thomas, **92**
M.A., F.R.A.I., Government Anthropologist. (Part I.—*Law and Custom of the Timne and other Tribes.* Part II.—*Timne-English Dictionary.* Part III.—*Timne Grammar and Stories.*) London : Harrison and Sons. 1916.

In these three volumes Mr. Thomas continues the series of studies of West African customs and languages which he began in the *Report on the Edo-speaking People* (1910), and continued in that on the *Ibo-speaking People* (1913).

The first part of the present Report deals mainly with the law and custom of the Timne, who occupy one of the largest areas of the Sierra Leone protectorate ; but brief accounts of the law and custom of other tribes are added at the end of each chapter. After a short introduction on the geographical features and languages of the region, Mr. Thomas discusses the demography as shown by detailed genealogies of the families of over two hundred and seventy men. As polygyny is the rule among these peoples—one of Mr. Thomas's informants had fifty wives, and was himself the son of a man who had sixty wives and a hundred children—the information obtained affords evidence as to the effect of this custom on the ratio of the sexes, and confirms the results obtained in Nigeria, that polygyny favours an excess of male births.

The position and prerogatives of the paramount chiefs are briefly dealt with, and six chapters are then devoted to religion and religious practices. In religion

the primitive paganism and ancestor-worship seems to have been modified by the influence of Islam, though not to such an extent as to disguise its main features. Some of these have, however, put on an Arab mask. The primitive deity Kuru-masaba has been confounded with Allah, and the minor spirits or *krifi* with the jin. Ancestor worship is performed on Friday in certain months, and the wicked dead go to Yehanum (Gehenna). Mr. Thomas discusses these beliefs in detail with the ceremonial of witchcraft, offerings, ritual prohibitions, divination, ordeals, and dreams.

An important section of the book is devoted to marriage and its regulation. Kinship tables are given in the seven principal languages of the colony. Birth and burial customs are described, the latter apparently influenced in some places by Muslim practices, such as the offering of prayer, sacrifices at stated times, and the discharging of the debts of the dead person. Totemism in a modified and decadent form was found by Mr. Thomas to exist, but to be of small importance. In the Timne country the clan name is appended as a kind of surname to that of the individual. Though the rule for marriage outside the clan was observed, it was not strict. Respect was shown to the totem by not eating it, if an animal, and by not burning it, if a tree.

Considering the importance of the secret societies in this part of Africa, the accounts given by Mr. Thomas seem somewhat meagre. For this he is probably not to blame, for native fear of the white man's law, and official reprobation of secret practices combine to render inquiry regarding these societies one of the most difficult tasks of ethnography. The Poro of the Sherbro people and the Rab'eule are the most fully described.

Law, Slavery, and Inheritance are dealt with in three short chapters, and there is an interesting account of farming and various technological processes.

This part concludes with a note on the Botanical features of Sierra Leone by Dr. O. Stapf. It is illustrated by a map and twenty plates reproducing more than thirty photographs, and contains an index.

Part II of the Report consists of a dictionary of the Timne language founded partly on Mr. Thomas's own collections, and partly on some unpublished manuscripts by Schlencker and Knödler, belonging to the Church Missionary Society. Part III comprises a Timne Grammar and a collection of twenty-seven native texts (twenty-six tales and a conversation) with interlinear translation. They were partly recorded on the phonograph, and partly taken down from dictation.

This short summary shows that the Report forms a worthy companion to Mr. Thomas's records of the Edo- and Ibo-speaking peoples. It cannot fail to be of use both to the anthropologist and to the official dealing with natives. It is to be hoped that Mr. Thomas may be able to carry on his researches in territories both east and west of Sierra Leone. Much has yet to be learned from Gambia, and the customs and law in Nigeria, north and south, require more record than is contained in the reports on the Edo and Ibo.

SIDNEY H. RAY.

ANTHROPOLOGICAL NOTES.

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Dew-Ponds, History, Observation and Experiment. By Edward A. Martin. $7\frac{1}{2} \times 5$. 206 pp. Illustrated. T. Werner Laurie, Ltd. 6s. net. (The Author.)

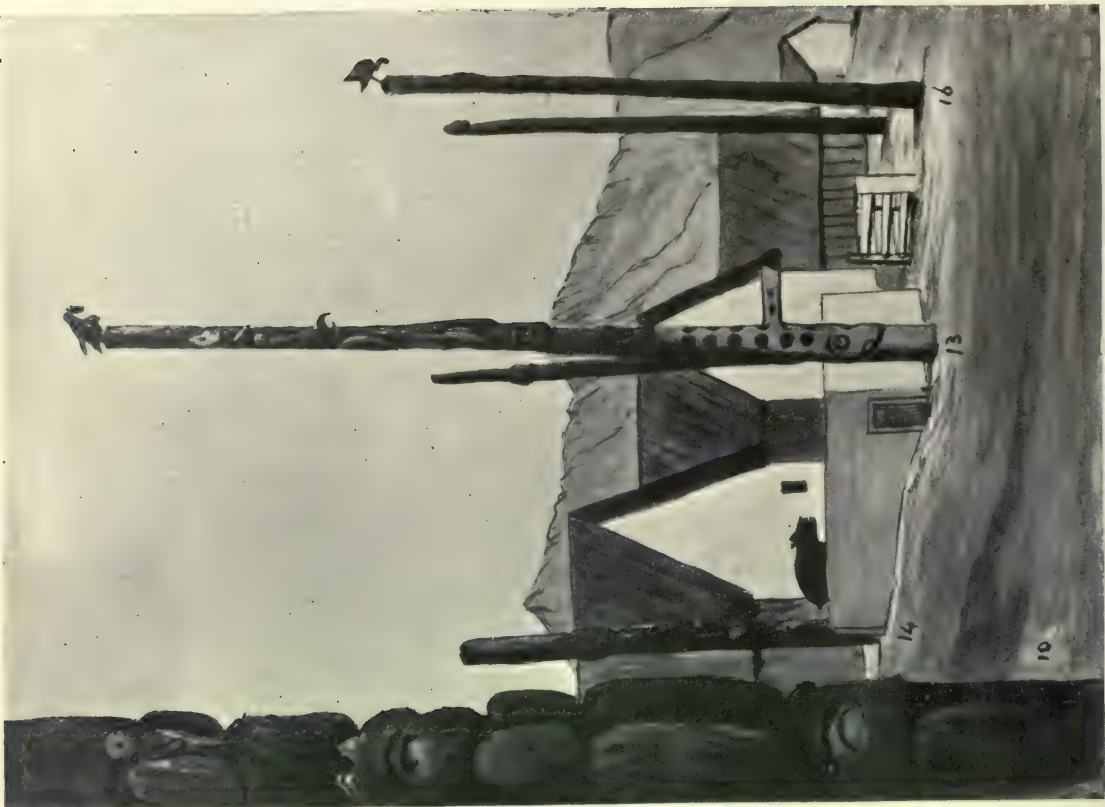


FIG. 2.—POLES AT KISHPIOX, B.C.

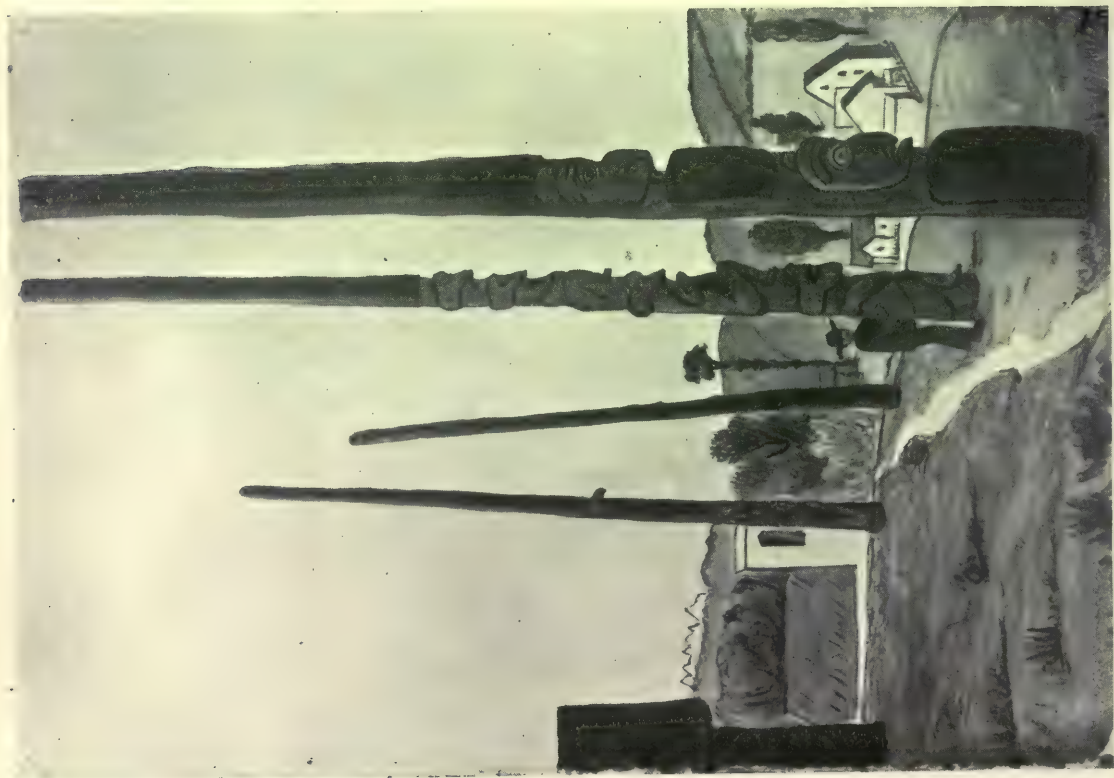


FIG. 1.—POLES AT HAZELTON, B.C.

ORIGINAL ARTICLES.

America, North.

With Plate I—J.

Breton.

Tsimshian Crest Poles at Hazelton and Kishpiox, B.C.By **94**

A. C. Breton.

A few notes and sketches made in October 1916 may be worth recording now that the crest-poles of northern British Columbia are decaying and are not likely to be replaced.

On the voyage from Vancouver to Prince Rupert the only poles seen are at Alert Bay, an island harbour near the north end of Vancouver Island. Unfortunately the direct steamers do not stop there. Otherwise the coast, both of mainland and islands, is mountainous and covered with thick forest. Approaching the new port of Prince Rupert, many ancient village-sites are noticeable on the shores of the neighbouring islands, from the bright green colour of the clam-shell heaps. Prince Rupert itself was dense forest until 1907, but is now cleared in the deadly way customary out west, leaving only six miles of rock and bog. The Grand Trunk Pacific goes from there along the water's edge to the entrance of the great fiord of the Skeena river and up that for some hours, passing fish canneries where the Indians work in summer. Formerly it was a fortnight's voyage in a large canoe from Port Essington, at the mouth of the Skeena, up to the forks where the Bulkley joins it.

There is no sign of Indian life until Gitwingak (or Kitwanga as the railway calls it), is reached, about 168 miles from Prince Rupert, and in the drier, more open region with great mountain masses, where the rivers have cut secondary valleys through vast accumulations of debris, and hunting and fishing are easy. The various missionary enterprises divided the villages amongst them, and Gitwingak does great credit to the Rev. A. E. Price (Church of England), who was there for many years, built a good church, and printed a useful primer or Gitksian Reader, all done by Indian help. Across the river, about $1\frac{1}{2}$ miles below Skeena Crossing, is another village with poles.

Hazelton is a few miles further, on a delta, where the Bulkley and Skeena join. The Indian name was Kitanmaksh (fishing by torchlight). It was a Hudson's Bay Post in the midst of the Indian reservation, to which the greater part of the site still belongs, though most of the Indian houses are on a bank above the Skeena. They are small, modern houses, the old barn-like ones that held a family in each corner, with the fire in the middle, having been abandoned. The poles are in front of the latter, and are said to have been carved about thirty years ago by a man from Naas, though they are so moss-covered, split, and worm-eaten, that it was difficult to believe this. In the sketch (Fig. 1) the details of the two farthest do not show. The second has some cleverly carved animals climbing on it. The end one (Fig. 3) has a seated figure with grotesque face, and hands in the typical Mexican gesture for eating, but were said by an Indian informant not to mean that, though he could not give the actual meaning. Above, three small seated figures, with hands raised, the palms outwards, were said to be praying. Still higher is a human figure with small faces incised on the shoulders, elbows and knees, and out-standing beak. The most interesting of these poles is by the road, where is also a short hollow pole with rudely carved animal head on top.

The cemetery, on the plateau above, has many very curious little burial chapels, in which the clothes, portraits, and boxes of the dead, are displayed. There are some

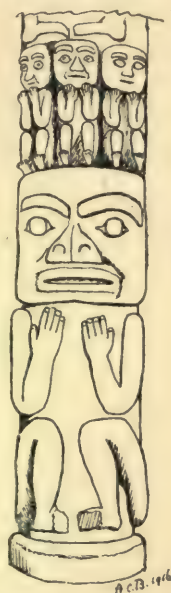


FIG. 3. — LOWER PART OF POLE 1 (DISTANT), HAZELTON, B.C.

small but costly modern tombstones, one to a "Chieftess," and some wooden dome-shaped erections, like Turkish graves. The wooden walls of the old houses were lined with fine bark matting, the doors and frames painted red. Since the coming of the railway and influx of miners and would-be settlers, the Indians are said to have become discontented, no longer feeling sure of their agricultural lands nor of their hunting-grounds. Mrs. Field, the rector's wife, has lived thirty years at Hazelton, where for long she was the only white woman, and could tell much of the people and their ways. Dr. Wrench, at the hospital, has a good collection of stone implements, spoons, rattles, masks, &c., and a statuette of black slate, in thickly plaited kilt, with rattle in right hand and small stick in left.

Kishpiox is a Methodist village on the Skeena, nine miles above Hazelton by a bad road. Church and school are at one end, so the large open space in the centre remains in its primitive state. There is a row of houses on the north side, their gable ends facing the square, with enclosed graves and crest-poles in front. The south side has only a few houses and two poles, one said to commemorate the carrying off of a woman by a man of another tribe. After a time she killed him and came back with her baby. My informant, a half-breed, owner of a ranch near by, was able to give information about the carvings on the poles, assisted by an Indian who was lounging there (who spoke no English), most of the inhabitants being away hunting. As at Hazelton, these poles are unlike those in museums. The figures are more natural, and often very spirited, especially animals known to the sculptor, showing not only great skill, but also a sense of humour. Positions of the hands are so varied that it seemed worth while to note them carefully, though unable to learn the import. Female figures are never carved.

The principal pole had the form of a flagstaff, 80 feet high, painted with a long black stripe proceeding from a black head with white eyes, at the base of the staff, and represented a snake. On a small enclosed platform in front of this were two carved wooden figures—one "the grizzly bear under the sea" (*medegum tseohaks*), the other a finback whale.

NOTES ON THE FIGURES

(Beginning at the west-end of the row, and in each case from the base upwards).

- Pole 1.—(a) Figure with animal head, hands held up, palms outward, fingers clenched; (b) hands clutching the body in front; (c) left hand round leg; (d) beak for nose, hands crossed on breast, feet turned inward; (e) bird. A plain space above.
- 2.—Has some red colour remaining. (a) Human figure, hands held up, palms outward, thumbs up, fingers straight down; (b) bird, red, wings with feathers indicated; (c) bird with outstanding beak; (d) human figure with outstanding beak; (e) plain piece; (f) bird (duck or goose?) in full relief on top. Grave in front.
- 3.—(a) Two frogs climbing; (b) animal facing down; (c) human figure with uplifted hands; (d) bird; (e) frog facing down; (f) human figure, hands praying.
- 4.—(a) Human figure standing; (b) two human figures sitting, hands clenched, ears on top of heads; (c) human figure standing, beak, breast ornament of a mask like those of jadeite in Central America, hands bent towards each other; (d) seated figure, grotesque face, ears on top; (e) long straight piece; (f) bear carved solid on top.
- 5.—(a) Owl; (b) five small standing figures, black legs—from waist up the bodies were blue, with red lips and nostrils; (c) black animal with faces in relief on hands; (d) bird standing on top.
- 6.—Hollow at back, with separate piece fitted in. (a) Standing figure, arms bent outward, hands raised. A seated figure on each side.
- 7.—Seated human figure, hands clasped round legs. Rest plain.
- 8.—Three owls, one above the other, with small owl-heads between; the ears of the top one have a face incised in each; a bird on top.
- 9.—(a) About 3 feet width of a diamond pattern, the edges deeply incised, the diamonds raised, said to represent matting; (b) three rows of circles, "young moons, young suns"; (c) owl with an eye carved on each wing.

- 10.—(a) "Something that grows in the wood, eatable," a shapeless object; (b) and (c) two large owls; (d) smaller owl holding baby.
- 11.—Seated figure with praying hands; rest plain.
- 12.—(a) Seated figure, hands on chest, right one highest; (b) a sort of Maltese cross formed of four small standing figures, their feet meeting, *wul na hac*; (c) standing figure, hands praying; (d) wolf facing downward.
- 13.—Carved right up. (a) Finback whale, head down, big eyes, fin on back outstanding; (b) standing human figure, hands on body; (c) land otters facing down; (d) bird; (e) small figures; (f) and (g) seated figures. Bird standing on top.
- 14.—This is hollow at the back. (a) and (b) Owls; (c) man standing holding a small figure; a platform in front (*see* sketch, Fig. 2), has a grizzly bear under the sea, with benches round.
- 15.—One figure high up, rest plain.
- 16.—(a) Seated figure; (b) frog, with water below; (c) another frog, both with heads down; (d) animal; (e) four men drawn up towards an eagle on top.

Some graves had modern tombstones. Of the few people seen, a stately dame recalled those of the Mixteca of Oaxaca, and a man walking with his family gazed with repugnance at the motor car.

Hagwilget, a Roman Catholic village of the Dene (so fully described by Father Morice), is a few miles from Hazelton on the other side of the Bulkley canyon, crossed there by a remarkable Indian wooden bridge, no longer in use, made somewhat in cantilever fashion. This village has no poles but boasts a fine new bell, with inscription. I was there on a Sunday afternoon, and some of the women were seated outside the little church, neatly dressed, very clean, and with courteous manners, but no English. Hagwilget means "steady-going people" in Tsimshian, and they look it. Strong baskets are made there of thick bark bent into shape, ornamented with diagonal toothed bands scraped to show a different surface.

Two recent books* give much interesting detail respecting these Indians, the authors' lives having been spent in the effort to bring out the fine qualities and capacities dormant among them. At Bella Bella the Indians made wharves, put down side-walks, and imposed taxes to improve the roads. At Port Simpson they were taught printing and had a little paper, begun in 1882. Dr. Crosby organised a fire company; musical instruments were bought by subscription, and a brass band made splendid music. As in Mexico, every Indian village now has its band. Worth noting is, that Dr. Crosby taught the Haida to rib canoes with small cedar sticks, and later showed them how to steam the ribs. Before, the canoes were liable to split in a storm. He says:—

The upper Skeena people speak of a time when the Haida, Tsimshians, and some Tlinkits all lived a few miles below the Forks (Hazelton), and point out the locality. There were thousands of people, and they had traps across the Skeena and plenty of fish. But a great flood came and the Haida went to Queen Charlotte Islands, while the Kit-Khatlas and Tsimshians stayed at the mouth of the Skeena in summer, and at old Metlakatla and Nsas in winter.

The accounts of the crest poles by both authors should be consulted by anyone wishing first-hand information. Dr. Collison describes the carving of one very elaborate pole and the

apparently reckless way in which the Indian cut and hewed with a large axe. "Where is your plan, are you not afraid to spoil your tree?" "No; the white man, when about to make any thing, first traces it on paper, but the Indian has all his plans here," pointing to his forehead. Having cut out the outline roughly, he then proceeded to the finer workmanship with an adze, finally polishing with the dried skin of a dogfish.

A. C. BRETON.

* *Up and Down the Pacific Coast*, T. Crosby, D.D., 1913. *In the Wake of the War Canoe*, Archdeacon Collison [no date, but new in 1916].

South Africa.

Bryant.

The Zulu Cult of the Dead. *By the Rev. A. T. Bryant.*

95

According to Zulu philosophy man is composed of two parts, the body (*umZimba*, pl. *imiZimba*) and the spirit or soul (*iDlozi*, pl. *amaDlozi*). Besides these, there are the *inTliziyo* (heart, feelings, mind), the *iKanda* or *inGqondo* (brain-power, intellect, understanding, memory, mind), as well as a hazily defined something called the *isiTunzi* (shadow, personality), which may have been originally one and the same thing as the *iDlozi* or spirit. But whether all these things are attributes of the body or of the soul, of the *umZimba*, or of the *iDlozi*; and whether at death they die with the former, or depart with the latter, does not seem clear to the Zulu, although the last hypothesis (that they accompany the departing spirit) would seem to be that which would most logically follow from other tenets of their belief.

The Zulu religion makes no definite statement on the doctrine of the immortality of the soul. The soul survives death, and is offered sacrifice practically continuously throughout an indefinite period of time; but how long it will continue to live, and whether or not it will endure for ever, is not defined. A man dies; but only in the flesh; his spirit (*iDlozi*, pl. *amaDlozi*) still endures. Whither, then, does it betake itself? Neither does it soar to the skies, nor does it go down into the grave and rot with the corpse. It enters neither into the forest tree nor into river pool, nor into the living body of other man or beast. But if it does not hark back unto the bosom of *Nkulunkulu*, its Maker, it certainly does betake itself where he, and every succeeding ancestor betook themselves, namely, to the nearest velt. There it becomes changed; and having shuffled out of one corruptible body, it now proceeds to put on another. In due course it reappears in visible form, in the guise of a snake. It does not enter into the body of any already existing snake, but simply materialises into one.

To kill one of these spirit-snakes was no doubt in former times an infringement of the native moral code. But how discriminate? Can they, then, be distinguished? They can; for the spirit-snakes form well-defined species, and all are harmless. The *iNyandezulu* (pl. *iziNyandezulu*), bright green of colour with black spottings on the upper body about the neck, is, if fully grown, always the spirit of a man of importance, a kraal-head or even a chief. When still young, being then not more than half an inch in thickness and a couple of feet long, it is a frequent and fearless visitor of the kraal fences, where it may often be seen moving leisurely about or basking in the sun. At that size it is regarded as the spirit of a man of insignificance, or even of a male child. The natives apparently suppose this small *iNyandezulu* to be a distinct species, and so usually call it, not by the former name, but *umHlwazi* (pl. *imiHlwazi*). The short, brown *uMabibini* (pl. *oMabibini*), also called *umZingandhlu*, very fond of taking up its abode in dark nooks within the hut, is the spirit of a female generally; though an old woman may take to herself the more imposing form of the large brown *umSenene* (pl. *imiSenene*), likewise occasionally called an *umHlwazi*. Some aged females, however, seem to object to becoming snakes. These prefer the guise of little lizards (*isiCashakazana* pl. *iziCashakazana*), which have the habit of climbing up to the roof inside the huts, then, losing their hold, fall upon anybody seated beneath. All these animals, being spirits of the dead, are, according to their rank, treated with due respect and never molested—at least, were not, until the Zulu came under white influence.

The only spirits that now really matter, that actually enter into the practical religion of the present-day Zulu, are the spirits of his father, his grandfather, and his other immediate ancestors. These he feels he knows, and they alone, he

assumes, have any present interest in him. From them he received his being. Them alone he fears, and from them alone all blessings and all curses flow. Practically there is only one demand they make upon him—namely, that he provide them with the regulation supply of meat, in other words, that he religiously discharge his duties, as prescribed by law (*i.e.*, tribal custom), in regard to the sacrifices to the dead. Any neglect will certainly meet with their strong disapproval, and will be followed by drastic reprisals. Their displeasure will always take the form of some misfortune befalling either him or his. Now they may rob him of a dear child or two; now they may deny his wives the blessing of offspring—for it is the prerogative of the ancestral spirits to mould the child in the womb; or, again, they may bring down on him or his family disease which the doctors will strive in vain to cure, till his obligations to his deceased forefathers are duly discharged.

But how shall he know whether the evil be the work of spirit or of human agency? The Zulu religion has furnished a device, which takes the form of an oracle, everywhere at hand, and at the present time accessible to all at the cost of one shilling. This oracle is established in the person of the *abaNgoma* (sing., *umNgoma*), popularly called witch-doctors, though more correctly spirit-diviners or necromancers. These are not the priests of the cult, for they do not officiate at the sacrifices, nor are they medical doctors or herbalists, a quite different and wholly civil profession, though both classes, in the Zulu language, are frequently called by the same name—namely, *iziNyunga* (sing., *iNyunga*), which simply means “skilled-ones,” “doctors.” The function of the diviners is simply to act as the mouthpiece of the spirits, as intermediaries between the living and the dead. They are, in a manner, mentally abnormal types of humanity, possessing certain occult powers (popularly called simply an *iDlozi*, or ancestral spirit), which have been, *nolens volens*, thrust upon them by the spirits themselves; for, as the possession of these powers involves considerable illness and mental and physical discomfort, nobody desires of his own accord to become possessed of them. By these powers the diviners are enabled to get into touch with the spirits, who, feeling the necessity of having some channel of intercommunication between their world and ours, have chosen these individuals to be their agents or mediums.

AbaNgoma, among the Zulu, are of two kinds. The one, very rare, is said to be possessed of an *umLozi* or *umLozikazana*, that is, a speaking (or rather whistling) spirit. In this case the diviner remains perfectly silent, the spirit itself doing the speaking. Europeans are wont to explain this as mere ventriloquism. And such, indeed, it may be; though if it is, it is certainly strange that ventriloquism should remain an idea otherwise absolutely unknown to the ordinary Zulu. Again, ventriloquism would not suffice to explain the phenomenon of the diviner's being able to reveal facts otherwise inaccessible to our normal senses. However, although the writer has seen and heard the performance, he has not been able to discover whether it is really the work of ventriloquism or not. This particular method of divination is practised also by the Luba tribes in the Southern Congo State. Moreover, the diviner there is called by practically the same name (*viz.*, *muLoshi*) as the spirit is among the Zulu, for the *umLozi* is really the spirit, though its possessor is also commonly named in the same way. But whereas the Zulu spirit speaks from the roof of the hut and in a distinct whistle (also in Zulu *umLozi*; whence the appellation), rather than a voice, that of the Luba appears to be kept caged within a vessel of some kind and speaks therefrom in a piping voice as though that of a child.

The second variety of *umNgoma* is said to be possessed of an *iDlozi*, that is, simply “a spirit.” In this type the spirit is silent, the speaking being done by the diviner under the spirit's inspiration. This species, again, has been “consulted”

with more or less interesting results, by the present writer. Inasmuch as the *iDlozi* type of diviner embraces, perhaps, more than 95 per cent. of the total number of practitioners in this country, the writer proposes to confine himself mainly to a consideration of this species.

The bone-diviner and the diviner by the divining-rod, though both are now fairly common in Natal, are not indigenous to the Zulu tribes. The bone-man is probably an importation from the inland Suto tribes; the rod-diviner from the Tongas.

An *umNgoma* may be a man or a woman, a youth or a girl. As a matter of fact, the great majority (fully 90 per cent.) are married women. Further, any individual may become an *umNgoma*, though never of his own choice; only if called to the office by the spirits, who alone can bestow upon him the occult powers necessary for divination. The chosen individual becomes afflicted with some strange disorder, which proves beyond the knowledge and skill of the Native medicine-man to cure. To the European practitioner, of course, these disorders are generally easily recognisable as forms of nervous disease; though occasionally they turn out to be brain, even kidney or lung, complaints. It is this inability of the Native doctors to cure that suggests the probability that the illness owes its origin to the ancestral spirits. Moved by this suspicion, the patient's relatives forthwith betake themselves for a consultation to an *umNgoma* of repute. If the *umNgoma* finds that the suspicion is well founded, and that the patient is suffering, not from disease, but from spirit possession, the sufferer is at once removed out of the hands of the medical man and passed over, for initiation, to the care of any selected *umNgoma* of power. The initiation process (which may cover anything from a few months to a couple of years) consists mainly in the administration of emetics and other herbal remedies, as well as a course of instruction in the ceremonies and functions of the profession. Should the treatment restore the patient's health, such will at once prove that the diagnosis was correct; and so soon as he can prove himself, by practical demonstration, able to divine with tolerable success, the initiation process will be regarded as complete; whereupon he will leave the kraal of his instructor (where he has heretofore been residing) and return to his own home, there to set up as a fully diploma'd *umNgoma*, holding sittings to all comers at a shilling apiece.

This form of divination is met with among other Bantu tribes; though almost everywhere the Bantu name for such a diviner is not *umNgoma* or any cognate word, but *Nganga*, which is akin to the Zulu *iNyanga*, "skilled one," a term also applied by the Zulu to their *umNgoma*. The root *ngoma* is itself common enough in Bantuland, but almost everywhere means a "drum"; though sometimes (Kavirondo and Angola) a "dance"; with the Kikuyu "temporary madness"; and with the Nika about Mombasa, a "spirit." But right away at the extreme end of Bantuland, among the Duala in the Cameroon, we meet with a diviner almost identical with his Zulu *confrère* in character and method, and called, moreover, *Ngambi*, which is probably of the same derivation as the Zulu *umNgoma*.

The popular idea concerning this Native divination business is that it is wholly and knowingly an imposture. But such an absolute and unqualified condemnation is not quite in harmony with the facts. As far as the actors themselves are concerned the whole performance is absolutely *bona fide*; and, based as it is on their spiritistic beliefs, it is perfectly reasonable and natural. A close and unbiased study of the matter will suffice to convince any European investigator that, subjectively, the whole business is genuine (that is to say, is devoid of any conscious or intentional fraud); and objectively, that while some of its features are real and inexplicable phenomena, a very great deal is undoubtedly

untrue, and in its consequences extremely harmful and dangerous to the Native community.

The original aim of these divinations, as practised among the Zulus, was, by means of certain abnormal powers of intuition, supposedly possessed by the *abaNgoma*, to reveal knowledge inaccessible to normal man. But the aim of the modern diviner, if judged by his actual practice, while containing all this, goes a good way beyond it; for in these present days his main object seems to be, by means of a certain cunning device, to reveal to the consulting party *his own* knowledge or desires. To divine by intuition, then, and to divine by device, these two methods of procedure must be clearly grasped and kept apart, the one from the other.

To divine by intuition is no easy achievement, and must, at the most, be a very rare occurrence. Notwithstanding that every *umNgoma* claims to possess the ability, only a really powerful diviner (as the Natives themselves are well aware) can actually accomplish the feat. This type of divination is exemplified usually in cases of loss or theft of stock, and one constantly hears of instances (sometimes on apparently quite trustworthy evidence) where the missing stock has really been traced and recovered through the agency of one of these diviners, though, it must be added, it is equally true that the reverse is very often the case.

The second, and by far the commonest method of divination, is a very different affair, and may be easily accomplished by any intelligent person, even a European, though quite devoid of any abnormal powers. It is no longer a work of intuition, but one solely of skill, or, rather, of mental cuteness. This type of divination occurs generally in cases of sickness, which furnish the matter for fully 90 per cent. of all Native consultations. Cases of sickness, where the consultant is already perfectly familiar with all the details and seeks only elucidation or advice, are naturally very different from cases of stock losses, where he is himself quite in the dark and unable to offer any suggestions. Matters of this kind demand of the *umNgoma* no troublesome exercise of his powers of intuition, which are not always at hand or easily excitable. Here he simply uses "skill," availing himself of the previous knowledge of the facts already in the possession of the consulting party. The plan he employs is precisely that practised by children in their game of "Hot and Cold," but in the present case the enquirer becomes the directing party quite unconsciously and unintentionally, and not by word of mouth, but by a process of clapping the hands, which becomes more, or less, vigorous according as the truth (as *he* believes it to be) is more, or less, approached. Although they themselves do not know it, the African Natives are a highly emotional people, and their inner feelings exert a very strong and marked influence on their physical members, which influence will operate quite automatically and without any will or intention on the part of the thinker. In cases of sickness, moreover, it is the habit of the Native always to suspect some *umTakati*, or evilly-disposed neighbour, against whom his feelings will naturally be intensely aroused. In this state of emotional excitement he appears before the diviner. This latter now starts by a process of guessing or gently feeling his way. He makes a statement, and after each short statement the enquirer claps his hands. If what the diviner says is not in accordance with the facts as known, or believed to be known, to the enquirer, the latter shows it (though quite unintentionally) by a markedly indifferent clap, which the diviner immediately notes. He now alters his statement, and wherever the clapping is vigorous, he concludes that he has hit the nail on the head, and forthwith fixes that statement. Feeling his way in this manner, he follows the trail right to the end. After he has succeeded in nailing down all the facts of the illness, as revealed by the clapping of the consultant, he winds up by explaining that it is the work of some malicious neighbour, or may be of the

amaDlozi (spirits). From this it is clear that, in cases of this kind, the diviner is simply revealing to the enquirer his own previous knowledge or preconceptions, telling him what he already knew, or at any rate thought or wished for. In doing this the diviner is giving him just what he wanted, and here, as in all sound business, the main point is to satisfy the customer. But, however fraudulent the practice may appear to be to us, to the Natives, diviners, and public alike, it is perfectly honest. Skill of this kind is regarded by them, just as much as intuition itself, as being a real manifestation of the "remarkable" powers bestowed by the spirits upon the diviner.

It would be interesting, before closing this reference, to inquire whether the abnormal powers of intuition referred to in connection with the first-mentioned type of diviner (those possessed by an *umLozi*) are really possible in mankind; and secondly, whether there is any ground for believing that our Native diviners really possess them. Such an inquiry would also take us far beyond the limit of space allotted us. But we may briefly say, firstly, that the great majority of Native diviners being clearly persons of the neurotic type, all psychologists and medical men will concede that persons of this neurotic or hysterical temperament are capable, in their fits of exaltation, of manifesting quite extraordinary powers and of performing mental feats altogether beyond the ability of normal individuals. Secondly, assuming (as everyone will be prepared to do) that a certain amount of intuitive power is innate in every human being, we may readily conclude that, among the primitive races of mankind (including our Kafirs), these powers will probably exist in a strength and degree quite unknown to us, in whom, owing to the greater development of the reasoning faculties, they have become gradually atrophied and lost. Curious experiences that we have personally made in connection with the performances of these Native *abaNgoma*, and which would be inexplicable unless attributed to intuition or clairvoyance or some other such occult power; as well as other equally curious instances we have met with in many Natives, of a quite abnormal "sense of direction" (akin to that possessed by certain animals and birds), as also of a certain strange sense of "mutual sympathetic or telepathic feeling" existent between Natives (generally blood-related) distantly separated, and between Natives and the animals, all these things have sufficed to convince the present writer that our supposition is more than probable; that our Natives are really in natural possession, in a greater or less degree, of divers mental attributes which we lack wholly or in part.

The Zulu only sacrifices and prays to the spirits when he wants something. To merely praise, unless it be to thank or to implore (and, much more so, merely to adore), were to him utterly useless and meaningless performances. To placate and supplicate in his own interests; to seek the bestowal of some favour, or the removal of some ill-luck, that is his idea of worship. In cases of marriage, when the grace of offspring is besought by the father for his daughter; in cases of sickness in the family, attributed by the diviners to ancestral displeasure; in cases of death in the kraal of father or grandfather—young men cannot, as a rule, aspire to sacrificial honours, while females, even in life of small importance, as "spirits" are utterly disregarded—such are some of the Zulu sacrifices and prayers. But should it chance to be a matter of national rather than of mere family concern, as, for instance, in the case of a general drought or a war, then the Zulu king will assume the rôle of tribal high-priest and sacrifice to the Greatest-great-ones, the most powerful *oNkulunkulu* of the clan, who, naturally, will be his own direct ancestors.

The Zulu "temple" is the kraal or cattle-fold (*isiBaya*). In every well-regulated Zulu kraal, in the hut of the oldest woman or *isaLukazi* (generally the

mother of the kraal-head), a large ceremonial blanket or *isiPuku* of cow's-hide or goats'-skins is carefully preserved for use on sacrificial occasions.

With this wrapped round him, like a Roman toga, the sacrificing "priest" majestically stands at the head of the cattle-fold, and the selected beast having been duly slain with exactly a couple of lance-thrusts, he harangues the spirits of his ancestors while the ox is still bellowing. Having called them by all the praise-names (*iziBongo*) he can think of, "There," he shouts, "is your meat, ye of the 'such-and-such clan' (naming, of course, his own); 'take ye and eat, that thereby 'this child of ours' (who is sick and whom you are taking from us) 'may be 'restored to health and to us'—or words of similar import, according as the occasion requires.

The business of skinning the beast is immediately proceeded with, and, when complete, the various joints are carried into the old woman's hut (*i.e.*, that of the mother of the kraal-head), or, if she be dead, into his own, where they are carefully placed in a heap upon the still wet hide, strewn with fresh branches. That is the altar; and the meat-joints are the sacrificial offering upon it. There the latter is left overnight "for the spirits" and untouched. On the morrow the joints are distributed and eaten by members of the family only, the prime quarters being claimed by the "priest" and other more important relatives, while that portion (generally the *iNanzi*, fourth stomach; the *amaNgima*, the "trotters," and such like), which nobody longs for, is allowed to remain, along with the ceremonial cloak, in the old woman's hut, where it is stowed away in some back corner for the sole entertainment of the spirits. Of course, it is duly found there next day, whole and untouched; and the explanation is that the spirits only lick it! A pot of beer is generally placed along side, and with the same result—they only sip it! Both these offerings of meat and beer are technically known as *umBeko* (pl. *imBeko*), *i.e.*, things-set-apart-for.

The *abaNgoma* fraternity is the only class among the Zulu that daily devote some time to prayer. Throughout the night and at early morn they may frequently be heard loudly praying to the spirits in their huts, or singing the hymns peculiar to their class. Wafted to one out of the stillness of the night, or at the peaceful hour of dawn while the rest of the world is still a-dozing, these songs have a sweetness all their own. The air is always in a plaintive, yet melodious monotone, and the burden of the prayer is for enlightenment in the séances of the approaching day.

Only the seniors concern themselves with these matters. The house-boys and nurse-girls we have around us—who constitute all of the Zulu nation most of us will ever come into contact with or know—take no part in all these pious practices of their race and know nothing of them. They are still mere children, and the ancestral spirits are fully mindful of them without either their service or their requests.

A. T. BRYANT.

Mathematics.

Thomas.

Bases of Numeration. By N. W. Thomas.

96

I recognise the justice of what Mr. Migeod says (MAN, 1917, 4) about *naveviba*; but I am not convinced that *horo* may not mean twelve in some areas, nor yet that an importation of the duodecimal system from outside is not more probable than Mr. Migeod's psychological explanation. As I pointed out, I have heard of at least one more duodecimal system on the Bauchi plateau, without, however, obtaining any details.

If this is so, it seems at least as likely that both systems came from outside as that they were independently developed. Before the considerations urged by Mr. Migeod as to the existence of six as a base can have much weight, we

must surely know that numerals on this base are found in the Bauchi area or in tribes that had a common home with the peoples of that area.

Five is the most common base for numbers from six to eight, but we also find three and four. What we want to know is the relative age of these different bases; it is inherently probable that five would make its way, at the expense of either four or three, under the influence of counting on the fingers, of which so far as I know only one system—the straightforward one—is in use from the west as far as the Cross River. This starts with a little finger and changes the finger for each unit added.

Mansfeld has figured (*Urwald—dokumente*) another system, which is also at Ikom. This uses the index for one and raises a finger for each unit up to four. Hutter (*Wanderungen*) records the Banyang and Bali system; and Gutmann (*Dichten*) gives information as to the more distant Wajagga system, but on the whole little attention has been paid to the subject. The following table shows these systems:—

No.	Fingers.			
	Ikom.	Banyang.	Bali.	Wajagga.
1	1 - - - -	4 - - - -	1 - - - -	1 left.
2	1, 2 - - -	3, 4 - - -	3, 4 - - -	—
3	2, 3, 4 - -	2, 3, 4 - -	2, 3, 4 - -	1, 2, 3.
4	1, 2, 3, 4 -	2, 3 of each hand -	1, 2, 3, 4 -	1, 2, 3, 4.
5	Clenched hand -	1, 2, 3, 4 and thumb of other hand.	Clenched hand -	Clenched hand.
6	2, 3, 4 of each hand (1 held down by thumb).	2, 3, 4 of each hand	2, 3, 4 of each hand	Right thumb in left hand.
7	1, 2 of right on left palm -	4 right + 3 left -	4 right + 3 left -	3, 4 right.
8	1, 2, 3, 4 of each hand -	4 right + 4 left -	4 right + 4 left -	2, 3, 4 right.
9	Clench right, and draw from left hand with four fingers extended.	5 right + 4 left -	5 right + 1 left -	1, 2, 3, 4 right.
10	Clap, or put clenched hands together.	Hands crossed with thumbs hooked.	Clap - - -	Fists or flat hands.
11	Clap, and hold 1 right -	—	—	—
12	Clap, and hold 1, 2 right -	—	—	—
13	Clap, and hold 2, 3, 4 right	—	—	—
14	Clap, and hold 1, 2, 3, 4 right	—	—	—
15	Touch chest with 1, 2, 3, 4 right.	—	—	—
16	Touch chest with 1, 2, 3, 4 right, and hold 1 right.	—	—	—
17	Do., hold 1, 2 right -	—	—	—
18	Do., hold 2, 3, 4 right -	—	—	—
19	Do., hold 1, 2, 3, 4 right -	—	—	—
20	Hands on feet, or place index of right to side of left hand and swing before chest.	—	—	—
21	Hands on feet, or place index of right to side of left hand and hold 1 right.	—	—	—
30	Swing 1 right and clap -	—	—	—
40	Swing 1 right twice -	—	—	—
100	Hand clenched with thumb between 2 and 3.	—	—	—

Hutter's statements are not free from ambiguity; for brevity I note his numbers from seven to nine inclusive in terms of the two hands instead of separate fingers.

I append a second table showing where these systems are irreconcilable with a base of five; it must, of course, remain uncertain in some cases on what base three

and four are indicated, but we can infer it from later numbers in these cases. There is no information as to the area over which each system prevails:—

No.	Base.			No.	Base.		
	Ikom.	Banyang.	Bali.		Ikom.	Banyang.	Bali.
3	(3)	—	(3)	6	3	3	3
4	(4)	2	—	7	—	4	4
5	—	4	—	8	4	4	4

We see that six and eight are, except in the Wajagga quinary system, in bases of three and four; this agrees with the Edo scheme; and the quaternary base is also found among the Kru and in the bend of the Niger. Until, however, we find some clue to the relative age of the numerals and the system of counting on the fingers, we can hardly discuss the question of whether the system of numerals on the quinary base has replaced a system or systems on another base.

It seems *primâ facie* probable that it has done so, but we cannot exclude the possibility that other bases came in with the use of cowry money; for both at Onitsha and Awka the unit of cowry money next above one is six. Here, again, lack of information prevents us from showing in what areas the base of five is not used.

If it is ever possible to map out the areas occupied by the different oral, digital, and currency systems, it will be interesting to compare them not only with each other but with the bases of the calendar. Webster has recently dealt with the week in West Africa, but without giving any clear picture of the distribution of the different weeks. We find in an area on both sides of the lower Niger, and as far as Dahomey, a four-day week, which is also known at the mouth of the Congo and in East Africa. A five-day area begins west of the Cross River, and may extend to the northern Yoruba (the southern have a four-day week); it is found also in Togoland, and the Ivory Coast hinterland at two points. A six-day week is known in Togoland, at Avikam, and, apparently, over a large part of the French Niger territory, but the data are few.

There can be no doubt that calendar systems have spread either by borrowing or by migration of peoples; in fact, the Edo and Ibo have the same names for the days of the week, though with a change in the order. But it is impossible to guess at present at what centre any given system had its rise, still more to explain how its base came to be chosen. It is equally clear that digital and currency systems have spread in the same way, even if oral systems did not (local diversities within the tribes make local evolution a possible explanation, though we may also appeal to the hypothesis of diverse outside influences). It is clear that more systematic knowledge on all the points noted above is needed before we can attempt to frame hypotheses or attempt to throw light on the use of the duodecimal base for numerals.

N. W. THOMAS.

REVIEWS.

Sociology.

Goodsell.

A History of the Family as a Social and Educational Institution. By 97
Willystine Goodsell, Ph.D. The Macmillan Company. 8s. 6d.

A History of the Family as a Social and Educational Institution, by Dr. Willystine Goodsell, is a concise and carefully written volume on an increasingly

important subject, regarded from the double standpoint which its title implies, and it is brought well down to the most recent (pre-war) period. Allowing for a few troublesome and disfiguring misprints, such as "anti-nuptial" for "ante-nuptial" (page 347), "egosime" for "egoism" (page 499), &c., it can be used with more confidence than most volumes of its kind, inasmuch as its author is so unusual as to have no private axe to grind, no lance to break, apparently, on behalf of any pet theory, but takes up an arguable and "documentable" middle position. It is this degree of moderation—a rare quality in present-day social literature—that constitutes one of the book's chief attractions as well as a strong claim to future utility. Under the new conditions now rapidly, and (one might almost say) palpably materialising, it seems certain that the main body of social institutions under which we live will be substantively recast in the fiery crucible of warlike circumstance, and although it is too soon to see clearly into what moulds the glowing metal will be run, there are already signs enough to show that the ultimate product will differ in many unexpected and some surprising respects from the vaticinations of our social prophets. The same fate that has overtaken so many of our pre-war theories of military and naval strategy and equipment can hardly fail to affect the fabric of the political and social organisation out of which those theories were spun. If we accept the statement in the Premier's late speech to the deputation from the Manchester Labour Conference, it is the "after-the-war settlement" that "will direct" "the destinies of all classes for generations to come," the settlement which, in his view, is to get us a "really new world." If we regard the utterances of President Wilson, in the speech in which he has just told us that America is "born to serve mankind," or the eloquent words in which General Smuts speaks of the necessity of building "on the bedrock of the Christian moral code" as symptomatic, it should be clear that altruism is consolidating its forces, and is likely to play a greater part than ever before in shaping our social institutions after the close of hostilities. Whether we shall not then still meet with the old wolves masquerading under new sheepskin disguises, is a matter which is likely to be piously doubted by the more phlegmatic, and furiously challenged by the more ardent spirits of the community, but it seems to be certain, in any case, that our antediluvian (*i.e.*, pre-war) methods of shepherding the flock will have to be revised! In these unprecedented circumstances it would be in all probability a bootless task to do more than touch lightly upon the attractive volume at present under review.

Dr. Goodsell traces the history of the family as an institution in all its vicissitudes from "primitive" times, throughout the flourishing period of the ancient Hebrews,* of Greece, and of Rome, down to the "Christianised" family type that prevailed in the Middle Ages, and was succeeded by that of the Renaissance, and by that of the modern (17-18th century) periods. By way of supplement he then discusses current theories of reform.

The book as a whole at first sight suggests a bundle of more or less nearly related essays, worked up from a series of lectures, rather than a connected digest of the subject under review, and it undoubtedly suffers to some extent in thus conveying a sense of incompleteness. It possesses, however, and that too in a high degree, unusual qualities of enterprise, of sturdy independent judgment, of inspiration even, which place it easily in the front line as a handbook for the general reader. Dr. Goodsell's description of the alluringly simple Arcadian life in the self-supporting seventeenth century homesteads of New England must possess an abiding

* It would, indeed, have added vastly to the value of the book had it been possible to include some description of the family life and institutions of the ancient Egyptians and of the ancient Mesopotamians, the more so since Babylonia was the mother country from which the Hebrew race itself traces its ancestry ("Ur of the Chaldees").

interest and charm for, and must indeed at the same time stimulate the pride of, every true Englishman, presenting, as it does, an atmosphere of self-helpfulness, and consequent solid comfort, such as most home-bred readers can only glean from the perusal, *e.g.*, of Thackeray's *Virginians*. Though not exactly a complete study, the book is an extremely useful epitome of general facts bearing on family institutions and relationship; considered as a subject for study, moreover, the curious reader may cull from its pages many unexpected sidelights on quaint social customs and institutions which have now for the most part been modified, or have disappeared from our midst. Among examples of such customs may be included that of smock-marriages (page 345), of the punishment of scolds (*ibid*), of the amazing custom of inflicting the death penalty on disobedient sons in the Puritan States of America (page 353), under a rigid interpretation and adoption of the Mosaic Law in Deuteronomy xxi., 20-21. In addition we are given the elucidation of the tantalising expression "Scarlet Letter" (page 354), familiar from Hawthorne's haunting romance; and yet again, the origin of "bundling" (page 365), which is properly a custom of Dutch origin, such as well might be expected to survive in the old Dutch colony of "New Amsterdam" (known to us as "New York"). Of yet wider and deeper interest to the general reader are the flashlight rays thrown on such subjects as the origin of the modern wedding veil (page 88), of the wedding cake (*ibid*), of the shoe-throwing after the ceremony (page 191), of the wedding-ring (page 190), indeed of the meaning of the word "wedding" itself (*ibid*). These references include marriage customs only, and the list could, of course, be extended to other subjects. At the same time, for the more advanced student, and indeed for the serious-minded reader generally, Dr. Goodsell has produced one of the most attractive introductions to the general question of social reform that has yet appeared. One delightful shaft of humour—of Parthian nature, belike—the reviewer must confess to have revelled in—the description, to wit, of the study of "Eugenics" as a "somewhat sanguine" science! Nevertheless, the author's remarks on this subject, as upon the kindred topics of feminism, of free love, and of the various aspects of divorce and marriage reform generally, are a model of temperateness and lucidity, though the theoretics will need re-stating—not through any fault of the book or its author—when the present world-earthquake has completed its colossal task of destruction, of emancipation, perhaps of the exaltation, even—if one may so dare to hope—however perilous, of humanity.

W. W. SKEAT.

Indonesia : Linguistics.

Brandstetter : Blagden.

An Introduction to Indonesian Linguistics. By Renward Brandstetter, Ph.D.

Translated by C. O. Blagden, M.A., M.R.A.S. Asiatic Society Monographs. **98**
Vol. XV. London: Published by the Royal Asiatic Society, 22, Albemarle Street, W. 1916.

The excellence of the work of the eminent Swiss scholar, Renward Brandstetter, has contributed very largely to the establishment of a sound method in the discussion of the problems of Indonesian Linguistics. Though a great deal of thoroughly good work has been done by the Dutch scholars—van der Tuuk, Kern, Adriani, and Jonker—their studies have had a somewhat narrower range than that of Brandstetter, and have dealt mainly with certain specific areas in the vast Indonesian linguistic field. But Brandstetter has selected for discussion the main features of Indonesian philology, and presents these in a series of essays which are models of scientific method and clear reasoning, and form a sound basis for the proper comparative study of the languages.

Four of the most important essays have been selected by Mr. C. O. Blagden,

himself an ardent student of Indonesian linguistics, and are now, by means of an excellent translation, made accessible to English students. Their titles are: 1, "Root and Word in the Indonesian Languages"; 2, "Common Indonesian and Original Indonesian"; 3, "The Indonesian Verb"; 4, "Phonetic Phenomena in the Indonesian Languages."

In the first, by the examination of related words in single languages and comparison of similar words in different languages, Brandstetter establishes the form of the Indonesian root, and then discusses its characteristics, variation, and meaning, with the derivation of the word-bases. In the second essay he deals with the phonetic system and word formations, with special reference to their agreement in various languages. He thus shows a common origin and evolution from a primitive type. The third essay deals with the Indonesian verb in all its aspects as to formation, expression of mood, tense and person, and syntax. Examples are taken from the best texts in twenty-four languages.

The essay on "Phonetic Phenomena" is the longest. It enumerates and describes the sounds of the languages and the phonetic laws which regulate their relationship.

Mr. Blagden is to be congratulated upon a very successful work. The translation is very close to the original, and the author himself has assisted in clearing up doubtful points. Mr. Blagden has added some useful footnotes. The translation cannot fail to be of very great use to the English student, whether of Indonesian languages or of linguistics generally. The Committee for Malay Studies of the Federated Malay States Government is to be commended for having commissioned the translator, and the Royal Asiatic Society for having sanctioned its inclusion in their valuable series of monographs on Oriental languages and archaeology.

SIDNEY H. RAY

South Africa: Philosophy.

Plaatje.

Sechuana Proverbs, with Literal Translations and their European Equivalents. (*Diane Tsa Secoana Le Maele a Sekgoa A a Dumalanang Naco.*)

99

By Solomon T. Plaatje. xii + 98 pp. London: Kegan Paul, Trench, Trübner & Co., Ltd. 1916.

This is an interesting and instructive collection of 732 proverbial sayings of the Chuana people. Each proverb is given in Sechuana, with a literal translation and an equivalent saying or sayings in one of the European languages. They form a vivid picture of the wit and wisdom of the Bechuana. Naturally most of the similes are drawn from the grazing ground or the hunting field, but there are not a few which show a closeness of observation and originality of thought quite warranting their comparison with European examples. Some examples may be quoted: "He charms his fold after the lion has delivered an attack," i.e., "He shuts the stable door after the horse has been stolen"; "Spotted leopards lick each other," i.e., "Birds of a feather flock together"; "The medicine of a far country is gathered on the day of the game drive," i.e., "Kill two birds with one stone." Many others show a close parallel with European sayings.

The writer, himself of Bechuana blood, and the first author of his race, has prefixed to his collection an interesting account (in English and Sechuana) of the history of literary effort among his people. This contains a series of portraits of the pioneers in Sechuana literature, in mission work, in scholarship, in journalism and printing, in law, and in phonetics. The portrait of the author himself is included.

Mr. Plaatje is to be congratulated on the book he has produced. One hopes it is only a sample of the valuable anthropological work which he may publish in

the future. A collection of Sechuana folk-lore and traditions, with the sociology of the Bechuana, would be a fitting task for one who has had the patience to collect and collate this unique collection of proverbs.

SIDNEY H. RAY.

Sociology.

Webster.

Rest-Days: a Study in Early Law and Morality. By Hutton Webster, Ph.D. New York: The Macmillan Co. 1916. Pp. xvi + 325.

100

The origin of the Hebrew Sabbath has long been a problem to thoughtful theologians; and the more rationalistic of them have preached that it is due to the need of periodic rest and refreshment from daily toil. Though this account of it by no means satisfied all the questions aroused by the regulations which governed it in the various legislations before and after the Captivity, no other was generally accepted. Until the development of anthropological research, however, no more convincing solution was possible. But when it was found, on the one hand, that many other peoples had a reckoning of time which divided it by weeks, some of seven days, others of four, five, or even ten, and sacred days periodically recurring at a greater distance of time, and, on the other hand, that some of the most industrious nations, like the Chinese, had no regular day of rest at all, it became evident that profounder and more extensive enquiries were necessary, and that the problem would have to be solved, if at all, by the comparative method.

To that task Dr. Webster, Professor of Social Anthropology in the University of Nebraska, has set himself; and after a preliminary monograph, issued several years ago, he has now given the world the result of his researches. The institution of rest-days is one aspect or branch of the widespread subject of taboo. Professor Webster therefore begins by a sketch of taboo in general, and a discussion of the taboo of time at epochs critical either to the individual or to the community. But the line between rest-days, during which labour, and indeed all other usual incidents of life, are tabooed at critical epochs, and periodically recurring days dedicated to the service of superhuman powers, is not very easy to draw: the one passes over into the other without any obvious gulf between them. If the one may not be said to be derived from the other, at all events they must both have taken their beginning from the same psychological causes. Here, however, two things are found. First, rest-days more or less regular in occurrence, and following at short intervals after periods of continuous labour among comparatively primitive peoples, are in general only observed by those which are given to agriculture. The pastoral nomads, the migratory hunters and fishers, know nothing about them, though they may observe days recurring at greater intervals, such as the full moon, or the annual return of summer or winter, which necessitates a seasonal change of habits. Secondly, "the greater number of periodic rest-days observed by agricultural peoples" in the lower stages of culture are associated with the institution of the market. "Days on which markets regularly take place are not infrequently characterized by "Sabbatarian regulations." Examples are found in both hemispheres, but particularly throughout equatorial Africa; and Dr. Webster examines them with some minuteness. Thence he turns to lunar observances and the seven-days' week—subjects which occupy the remainder of the volume.

While the market-day is, speaking generally and wherever Mohammedan influences have not contaminated the earlier practice, independent of the seven-days' week and the observation of the moon, "among many peoples in both the lower and "the higher culture the time of new moon and full moon, much less commonly of "each half-moon, forms a season of restriction and abstinence." This taboo, arising under primitive conditions, is greatly strengthened by the general course of religious

development, the emergence of polytheistic cults, and the schematization of the ritual. The author justly observes that it seems idle to seek a particularistic explanation for it. The moon waxing and waning is held to exert a sympathetic influence on human activities. Moreover, "the new moon, rising as it were from the "dead, is thought to be pregnant with meaning for the life of man." Her conspicuousness in the heavens, her great and mysterious changes, render her the first of the heavenly bodies to be observed with attention; and the beginnings of a calendar may in many cases be traced to the observation of the moon. The calendar in its turn is inseparably associated with religious ideas and religious practices.

Among the Israelites the term *shabbāth* was originally the designation of the day of the full moon. It came to be applied to every seventh day, and the religious taboos originally affixed to the season of full moon were, many of them, applied to the seventh day. Dr. Webster holds that the Hebrew institution of the Sabbath was not derived either from Egypt or from Babylon, but was a native development from the observance of the full moon. With the dispersion of the Jews, even before the Christian era, it was carried throughout the Roman Empire, and the observance of the seventh day as a day of rest seems to have been borrowed from them by the Greeks and the Romans. With the spread of the worship of Mithra, Christianity's most formidable rival, came a tendency to substitute the first day of the week for the seventh as a day of rest from secular occupation, and of worship. Constantine (A.D. 321) legalised it by an edict requiring magistrates, city people, and artisans to rest "on the venerable day of the sun," though he still permitted agricultural labour on account of its utility and the necessity of taking advantage of the weather. This was a pagan regulation by the emperor as Pontifex Maximus. But when Christianity finally became the State religion, and the pagan days of observance were abolished or became obsolete, Sunday was retained with a new meaning.

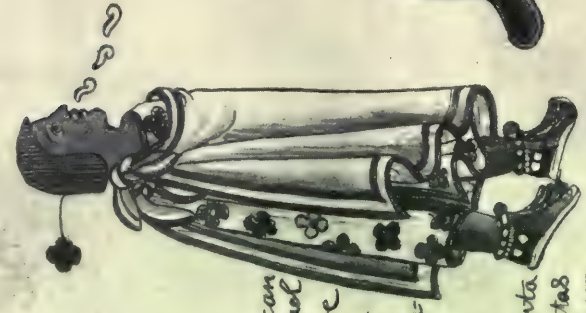
This bare outline of Dr. Webster's learned and acute argument can give no notion of the width of his research and the care with which he has sifted the vast array of his authorities. Doubtless here and there a meticulous examination may detect a slip, as when he speaks of the Arunta making "a male deity" of the moon. These things, however, are trifles, and do not derogate from the accurate scholarship displayed in this masterly treatise.

I have spoken of the origin of rest-days as a problem to be solved, if at all, by the comparative method. And it is by the comparative method that Professor Webster has proceeded. At the same time he is quite aware that there are limitations to the use of the comparative method alone. The chapters on the Babylonian Evil Days and the Hebrew Sabbath show how well and sagaciously he is able to employ the historical method. He sums up the difference in the application and value of the two methods thus: "Within contiguous areas, for example, in Borneo "and the adjoining islands, or among related peoples, such as the American and "Asiatic Eskimo, it is reasonable to ascribe the uniformity of custom to long-continued borrowing. . . . But where the tabooed days are observed for the "same reasons by unrelated peoples, who, as far as our knowledge reaches, have "never been in cultural contact, the student is obliged to conclude that the beliefs "underlying the custom in question have not been narrowly limited, but belong to "the general stock of primitive ideas. In such cases the doctrine of the funda- "mental unity of the human mind seems alone to be capable of explaining the "astonishing similarity of its products at different times and in different parts of "the world." These are the principles that have guided him to his conclusions.

E. SIDNEY HARTLAND.

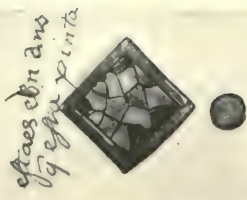
ANNE C. HUNTER

la
lag. de los v^o



tlapotlan

miquel Diaz



estas en ans
y en pinto

¿ pasado un año que los tubo en encomienda el dño Diego de/scan
po selos quitaron a los encomendados el dño marques en miquel
Díaz el qual los tubo en encomienda un año e le dieron de
tributos en el dño año quarenta planguelas de oro q las a
una tenga treinta ps de oro fino y doce cargas de dño a
thia/ a la en el dño pueblo veinte y oye re mill y sette sien-
tos y sesenta y cinco ls que y a se/ ba desmuyendo
la gente a labra de los escabos tributos/ y en el dño año
que los tubo en encomienda ayo mesmo le dieron ochenta
mill granos de ari y doscientos panes de sal y 160000
cargas de fierros/ y ochocientas cargas de farina de may/ y
y dñas/ ochocientas cargas de may/ molido diferente
de lo otro/ y veinte cargas de trigo/ coso de la tierra y mucha
cantidad de ollas y fantanos e comales/ y tres cuantos tamemes
de gallinas y sesenta cargas de pinol y mille y doscientos
tamemes que fueron en el dño año en diferentes tpos/ omijos
principales anellos y treinta y tres mill y seyscientas cargas de
may/ y diez y dñas/ fite/ diamante que molian todo lo qual que
dñel dño may/ como dñe/ gallinas/ tamemes y banillo/ laban
a las minas de oro donde el dño miquel Díaz tenía sus esclavos sa-
cándole/ oro que oye desde el dño pueblo a las dñas minas
treinta leguas

ORIGINAL ARTICLES.

Mexico.

With Plate K.

Hunter.

Memorial of the Indians of Tepetlaoztoc to the King of Spain.

By Annie G. Hunter.

101

This most interesting MS. of the 16th century was amongst Lord Kingsborough's papers at the British Museum, but is not published in his great work on Mexico. The MS. is a complaint addressed by the Indians to the King of Spain against the excessive tribute extorted from them by his representatives in command of the conquered cities of New Spain (Mexico).

Tepetlaoztoc is a hill town between Tetzcoco and Otumba, in a corner of the valley of Mexico. The accompanying plate* shows a native chief making his protest to the Spanish commandant, Miguel Diaz. The fidelity of the portrait of the Spaniard of that period inclines one to feel certain that the representation of the chief is equally true to reality both in features and costume.

The Spanish writing on the plate tells us how the former large population of the city had been depleted by hard work and extortions:—

"Forty small plates of gold," being demanded each year, "twelve loads of rich cloth, eighty thousand grains of pepper, two hundred cakes of salt, eight hundred loads of beans, eight hundred loads of maize flour, eight hundred loads of ground maize of various kinds, a great quantity of earthen pots (*ollas*), large wine jars (*cantaros*), and plates (*comales*, flat earthen pans), and many fowl, and much pinol (an aromatic powder used in making chocolate, now called pinola)."

Besides all this there was a daily service of natives to grind what was required, and to take supplies to the mines where Miguel Diaz had his slaves seking gold.

The page ends pathetically, "These mines, alas! were thirty leagues distant from the city."

After the 19th American Congress in London, 1912, Señor Francesco del Paso y Troncoso, delegate for the Mexican Government, had a phototype reproduction made of the MS., dedicating it to Lord Kingsborough as "Codex Kingsborough."

Senor Francesco del Paso y Troncoso has also given a very good description of it in *Proceedings of the 19th International Congress of Americanists in London*, 1912, with a picture map of the district.

So far the MS. has only been thus reproduced in black and white.

I am at present engaged in making a coloured facsimile of the MS. for Mr. Charles P. Bowditch, of Boston, one of the governing body of the Peabody Museum.

An account of it will be included in an article I am shortly to contribute to *The Archaeologist* on the "Latest Additions to the Study of American Antiquities."

ANNIE G. HUNTER.

Africa, West: Sierra Leone.

Migeod.

A Mende Dance. By F. W. H. Migeod.**102**

The following account of a country dance was dictated to me by a Mende named Joe some time since. The translation is interlined. The story begins with a note of the wishes of the town to possess the things requisite for a certain dance. A committee is detailed to arrange for their manufacture. The craftsman is visited, and he is instructed in the traditional method of making the head-dresses, etc. When they are made the purchasing committee goes to fetch them, and then inquires the price. With this they are dissatisfied, and a reduction is effected.

* The plate is drawn from the original MS. by A. G. Hunter.

Eventually, when all the remainder of the costume has been made and all is ready, a day is fixed, and the first dance held. Some of the performances of the dancing image are next described; and, after it has received its name, it remains as a permanent institution of the town.

NDOLEHUMOI.—THE DANCER.

Mu tato. Nunga wawaisia ti tei hu, te, a mu ndole¹ hani gbate, ma ya lolela a kpoko.

We begin. The big men of the town said, let us make a dancing thing so that we may go and dance in the evening.

Ke ti konga gbi tei hu, ti ti lolinga ti wa.

And they called all the young men in the town to come.

Te, a mu ndole hani mia mu gbatema.

They said, we ought to make a dancing thing.

Te, fale, mu ndo a wue.

They said, therefore, we will explain it to you.

Te wu kurua o wu kuruni?

They said, do you agree or do you not agree?

Konga te kurungo le.

The men said, it is agreed.

Te, ke migbe le?

And they said, and when will it be?

Te, a mu li nguru-haga-beleisia gama, ti ingui gbate mue.

They said, let us go to the wood-carvers, they (will) make the head for us.

Te kurungo le. Ke ti ya nguru-haga-beleisia gama.

They said, it is agreed. And they went to the wood-carvers.

Ti li, te, mu wa wu humo wu gbate mue.

They go. They said, we come (to ask) you to make a Humo² head for us.

Te, a ye lolo?

They said, how many?

Te, a ye nani. Te, fere kpakpate, bi toa, kena ndopa³ wui na, ndowoi a ye nani ingui yelei ma.

They said, it will be four. They said, make two pairs, you see, (one) like a deer's head, with four horns on one head.

Ipekei wu gbate kena njahelè yongolui na.

The other you make with hippopotamus teeth on it.

Ba nda beka fere, bi nda beka gboma fere.

You will put two this side, you put two again that side.

Bi yama, bi ipekei na fere ba kpate yela a Sowo⁴ wai wui felengoi towa-wuli⁵ ngi lowoi.

You return, you make one like a big Sowo mask with a pair of bush-goat's horns woven in.

A ye beka woita, beka woita.

On this side will be six, on the other side six.

Bi yama, bi ipekei gbate kena koli wui na.

You return (= again, or, next), you make the other like a leopard head.

Ba ngongolui la beka nani, bi nda beka nani, ke bi kpoyoa.

You put four teeth this side, you put four teeth that side, and you finish.

Ye, nya loko lo ma.

He said, my hand is on it (= I agree).

Ye, a-li, lo pu wu wa wa male ngi kpele gboyonga.

He said, go and come in ten days and you will find I have finished all.

Ke ti yama. Ko lo pui i hitia ma. Ke ti wa, ti male ikpelei gboyonga.
And they returned. And on the tenth day they come, they find it was all finished.
 Te, gbe jongo mia ma bi pawala? Ye, navo ngu nani.
They said, how much shall we pay you? He said, four head of money.
 Te, Ko! Te, gbotongo le.
They said, Oh! They said, it is too much.
 Te, maye.
They said, reduce it.
 Ye, ke ngi kpama ngu yira, i loa ngu sawa.
He said, Well, I am taking off one head, that leaves three head.
 Te, mu kurua. Ke ti wa a Mende gule. Ti waila kate⁶ sawa.
They said, we accept it. And they came with Mende cloth. They brought three
"kate."
 Ke ti fea ngi ye, i kurua. Ke ti wa a humo wui naningo.
And they gave it him, he accepted it. And they brought the four Humo heads.
 Ke ti konga lolinga. Ti kpate, ti ndoa tie.
And they called the young men. They prepared (them), they showed (them) to
them.
 Te, ndole hani gege mue ma gbate lo, tamia ti kpatea.
They said, the dance thing we said we would make, so it is they have made it.
 Fale mu ndoa wue. Te, mu kurua.
Therefore we show it you. They said, we accept it.
 Te, a mu konde gule mbumbu.
They said, let us take a country cloth.
 Te, a mu pu baji⁷ hu, mu kpou.
They said, let us put it into "baji" dye and make it yellow.
 Te, mu kurua. Te, mu yama, mu nduvui⁸ gbia mu kao.
They said, we agree. They said, let us return and pull off a palm branch and
peel it.
 Ta be mu pu mbundoi⁹ hu. Ke ti nduvui wunga mbundoi hu.
Next let us put it in camwood dye. And they put the palm branch into camwood
dye.
 Ke ti konde gule wunga baji hu, ti kpounga.¹⁰
And they put the country cloth into "baji" dye, they made it yellow.
 Ke ti humo wui wunga baji hu ti kpou.
And they put the Humo head into "baji" dye, they made it yellow.
 Ti pekei wu njalei hu. Ke ti pua njalei hu, ingui fere ti telini.¹⁰
They put the other into indigo. They put it into indigo, they dyed the two heads
black.
 Ingui fere gboma ti kpouni. Ke ti kpoyoa.
The other two heads they made red. And they finished.
 Te, migbe ma ndole ji lato? Te, lo fere ma ya ndole lato.
They said, when shall we begin this dance? They said, we will begin in two days.
 Te, mu kurua. Ke ti ya. Ke loi i hitia ma.
They said, we accept it. And they went. And the day came.
 Ke ti wa, te, migbe ma lato? Te, a kpoko voloi mia we ma ndole lato.
And they came, they said, when shall we begin? They said, towards evening we
will begin the dance.
 Te, mu kurua.
They said, we agree.
 Ke ti sangbe lauga, ke ti mbili wai lauga.
And they tightened up the small drums, and they tightened up the big drum.

Ke ti ya kpiti hu. Ti li, ti kere¹¹ yase imbengoi dewe, ngili nani, ke ti wala tei hu.

And they went into the jungle. They go, they cut four bundles of dry palm leaves, and they bring them into the town.

Ke ti kula ngiti wa ya ndoleme.

And they threw them down in the big dancing place.

Ke ti ndole latoa. A ndole we, a lola, a de poron.

And they began the dance. It dances, it grows, it rises to a great height.

Ke i yama i kutu. A ndole we, a ndoi le.

And it became small again. It dances, it bears children.¹²

A yama, a ndole we ngi wuinga fere. A yama, a ndole we.

It returns, it dances, it (next) has two heads. It returns, it dances.

Ta ngombui yate, ti njasa mbe wu nga. Ke i gula hu.

They light a fire, they put the dry leaves on it. And it fell inside.

Ngombui a vo, ngi gei e mo.

The fire flares up (but) its covering cannot burn.

Ke i ndole wenga. Ke i kpoyoa. Ke i yama. Ke ti yinga.

And it danced. And it finished. And it returned. And they slept.

Ke ngele wa, te, ngafe¹³ ji gue i ndole weni, ngi biyei?

And next morning they said, this spirit that danced last night, what is its name?

Nunga wawa tei hu, te, Ndolehumoi mia.

The big men in the town said, it is Ndolehumo.

Tei gbi, tamia, wa ngi dolela. Te, mu kurua.

All you in the town, therefore, must call him so. They said, we agree.

Ke ina i gboyoa ma a ngi ndei na.

And that is finished as far as that is concerned.

F. W. H. MIGEOD.

NOTES.

¹ The word "dance" is used throughout here, but it does not mean that all the spectators necessarily danced themselves. It refers rather to the antics of the image whose movements are described as dancing. The "o" in *ndole* (dance), is pronounced nearly like "u."

² *Humo*—a fetish or medicine personage in the Poro society.

³ *Ndopa*—an antelope, the Bush-buck or Harnessed Antelope (*Tragelaphus scriptus*).

⁴ *Sowo*—a leading personage in the Sande (also called Bundu) society, which is the great female "secret" society.

⁵ *Towa-wuli*—a small duiker, called in Sierra Leone English the Bush-goat or Filantomba. (*Cephalophus sp.*).

⁶ *Kate*—a length of cloth up to 48 yards but varying in breadth. The scale of cloth measure is 1 Ba = 2 fathoms; 1 bale = 2 Ba; 1 Kate = 6 bale, but some say 5 bale, others 7 bale.

⁷ *Baji*—I am not sure of the botanical name of this tree.

⁸ *Nduru*—a palm (*Raphia vinifera*). It has many uses. The long strong fronds are employed for roofing. Decomposed in water they produce the piassaba fibre. The leaves are sewn together with small splinters to make mats like tiles for roofing. I do not think that this last use is indigenous, however, but that it was brought from Cameroons and French Congo region by released slaves landed at Sierra Leone in former days. The stem of this palm produces palm wine.

⁹ *Mbundo*—the camwood (*Baphia nitida*—*Leguminosae*).

¹⁰ Dark blue is not particularly distinguished from black, nor are yellow, red, and brown from each other.

¹¹ *Kere*—an inferior date-palm of small size. It grows on the edge of brackish water. This name is, I think, only known to Mende living near tidal water, not to those further up country (*Phoenix reclinata* or *spinosa*).

¹² Explanation supplied, "because he puts the heads on his hands and feet," making as it were additional beings.

¹³ *Ngafe* is the equivalent of the word "devil" which is commonly used in descriptions of African fetish practices. It is also used in "coast" English.

India: Folklore.

Hildburgh.

Note on a Magical Curative Practice in Use at Benares. By **103**
W. L. Hildburgh.

The following practice was described to me at Benares, and as being in use among the Hindus of that city. It was said to be carried out when the patient's sufferings are due to the malignant spirit of a woman who has died in childbirth. Although the natures neither of the patients nor of their malady were specified in the description, we may, I think, from certain well-recognised characteristics of such a spirit, judge that the patients to be treated are either infants or pregnant or parturient women. The various small objects mentioned below as employed in carrying the process into effect were purchased for me by my informant, some at one shop, some at another; their total cost amounted to about one anna.

The performance is preferably carried out on a Sunday, a Tuesday or a Saturday. Into a small paper palanquin, such as is used by children as a toy, are put toy or other representations of the following objects:—(a) A plate, generally red on its upper surface, and usually with silver-coloured streaks; (b) a box, containing two of the spangles used by women for decorating their foreheads; (c) a comb; (d) rolls for placing in the holes in the lobes of the ears; (e) two bangles; (f) two bracelets made of cord; (g) a necklace; and (h) a doll. The palanquin, with the other things in it, is then carried round the patient's body—or, sometimes, passed round his (or her) head—usually three times or five times, and the afflicting spirit is requested to leave her victim in peace, it being believed (according to my informant) that, presumably pleased with the offerings of the ornaments, &c., for her use which she finds within the palanquin, and with the gift of the vehicle, she will be disposed to transfer her activities from the sufferer. The doll, which my informant stated was for the spirit "to play with," has been, I am inclined to think, probably intended to represent the victim, and to supply the offender with a substitute for the application of her attentions. The palanquin and its contents are finally taken, at night, to a cross-roads, and left at the junction; the person carrying the objects should not be spoken to on his way to the spot, lest the efficacy of the performance be impaired. After the palanquin has been left at the cross-roads, should anyone chance to step upon or over it, the patient will be cured, while (according to my informant) the person who has passed over the palanquin will become ill in the patient's place; and should it happen that no one steps over the palanquin, the patient will probably be only imperfectly relieved, and only in accordance with the charitable inclinations of the afflicting spirit.

I think, basing my judgment on the greater part of the features of the above operation, that my informant was probably in error in stating its underlying conception to be the pleasing of the afflicting spirit to such a degree that she will voluntarily give up her victim. The attempted bribery of a supernatural being to whom a malady is ascribed occurs not infrequently in curative practices among Asiatic peoples, but it occurs generally when the supposed cause of the harm is regarded as being of so powerful a nature that it must be treated with respect, and persuaded, rather than compelled, to leave its victim—small-pox, for example, furnishes many illustrations of treatments based on this idea. To me the present practice appears to embody rather the idea of a spirit-trap, into which the ghost—doubtless looked upon as being, like most ghosts, somewhat stupid—is to be enticed, and in which she will find things to amuse her, and, until it is too late for her to return to her victim, make her forget all about the evil work on which she has been engaged. The principal objection to this theory seems to me to lie in the statements—which might conceivably be regarded as associated with a powerful demon rather than with a comparatively feeble ghost—that, if the palanquin be stepped over, the person stepping over it will contract the

malady, and that if it be not stepped over the malady may recur; but this objection is almost extinguished by the possibility that my informant was erroneously adding a detail properly belonging to some other operation, the probability that the malady is thought to affect only those who are of an age or a sex liable to its attacks, and the conception—a fairly common one in at least other parts of the East—that a thing which is stepped over is weakened, or even rendered powerless. The taking of the objects to the cross-roads at night is, perhaps, to be accounted for by the very practical consideration that, if the palanquin be deposited during the night, there is more chance of its being stepped over, unnoticed in the darkness, than if it were left during the day-time, as well as by some such general conceptions as that, the evil spirit being one of those most (or entirely) active during hours of darkness, all transactions with her should be carried through during those hours; that, fearing the sunlight, she may refuse to leave her victim's house excepting in darkness; and that at night there is less chance of her being caused, by some random word or action of a passer-by, to leave her vehicle before the cross-roads has been reached and to return to her victim along the road she has gone over; while the somewhat anti-social character of one of the elements of the operation—the transference of the malady to an unsuspecting stranger—is not improbably accompanied by a fear of reprobation should the bearer of the objects be detected at his task.

W. L. HILDBURGH.

This is an interesting example of the beliefs in Northern India as to the *Churēl*. The following passage from Mr. Crooke's *Popular Religion and Folklore of Northern India*, Vol. I, pp. 273, 274, is worth reference, as further illustrating the idea of amusing or diverting these malicious spirits. "In the Hills the place where a pregnant woman died is carefully scraped and the earth removed. The spot is then sown with mustard (*sarson*), which is also sprinkled along the road traversed by the corpse on its way to the burial ground. The reason given for this is two-fold. First, the mustard blossoms in the world of the dead, and the sweet smell pleases the spirit and keeps her content, so that she does not long to revisit her earthly home; secondly, the *Churēl* rises from her grave at nightfall and seeks to return to her friends. She sees the minute grains of the mustard scattered abroad and stoops to pick it up, and while so engaged Cock-crow comes; she is unable to visit her home, and must return to her grave. This is another instance of the rule that evil spirits move about only at night."

M. L. D.

Anthropology.

Petrie.

Links of North and South. By W. M. Flinders Petrie, D.C.L., F.R.S. **104**

As those who study classical and northern history follow somewhat different lines, it seems desirable to bring together a few connections, however simple they may be, which may help to join the two fields. There is no connected argument in this paper; it is only hod-man work in collecting anthropologic material.

The account of Zamolxis varies. Strabo states that he was a disciple of Pythagoras, afterwards a priest, and then "esteemed as a god, and, having retired into a district of caverns, inaccessible and unfrequented by other men, he there passed his life. . . . The custom continues to our time, for there is always found someone of this character who assists the king in his counsels, and is styled a god by the Getæ. This mountain likewise where Zamolxis retired is held sacred" (*Strabo*, VII., iii., 3). Again, "Prophets received so much honour as to be thought worthy of thrones, because they were supposed to communicate ordinances and precepts from the gods, both during their lifetime and after their death, as, for example, Teiresias. Such were Amphiarus, Trophonius, Orpheus, and Musæus; in former times there was Zamolxis, a Pythagorean, who was accounted a god

"among the Getæ" (*Strabo*, XVI, ii, 39). These Getæ dwelt south of the Danube, but north of Thrace, in the modern Bulgaria, and were conquered by Darius. "They imagine that they themselves do not die, but that the deceased goes to the deity Zalmoxis. . . . Every fifth year they despatched one of themselves, taken by lot, to Zalmoxis, with orders to let him know on each occasion what they want" (H., iv, 94). Herodotus continues to relate how Zalmoxis was a Pythagorean, and civilised the Thracians, and concludes, "For my own part, I neither disbelieve, nor entirely believe, the account of this person and the subterranean habitation, but I am of opinion that this Zalmoxis lived many years before Pythagoras, yet, whether Zalmoxis were a man or a native deity among the Getæ, I take my leave of him." Thus we sight Zamolxis as a chthonic deity among the Getæ at about 450 B.C., and similarly at about 20 A.D. The variation of the name Zamolxis to Zalmoxis is probably due to assimilating it to Ζάλμος, a bear's skin.

Remembering that the Getæ had probably drifted south from the Baltic, it seems impossible to separate Zamolxis of Thrace from Ziameluks, "a lord or god of the earth, who was buried in the earth" by the Prussians, and who had a consort, Zamolukse, "the earth goddess," as described by Prætorius (*Deliciæ Prussicæ*, p. 66). For the discussion of other connections and names of this Prussian god, see Chadwick, *Origin of the English Nation*, p. 247.

To turn to another matter, the stone seated figures holding a cup are very usual in South Russia. This cup, in reality, was doubtless of horn, as pottery or glass would not be usual among nomads; and our modern tumbler is the copy of the earlier horn cup still in use. These figures are found from the Dneiper to the Yenesei, placed upon mounds. They are always female, some nude, mostly clothed such as the modern Russian women (Aspelin: *Antiquités du Nord finno-ougrien*, I, p. 73, Figs. 333, 335; p. 84, Figs. 374, 375. Guthrie; *Tour through the Taurida*, pp. 406-11). William of Malmesbury (p. 189) seems to give the clue to these when he states that the Emperor Henry, 1042 A.D., subdued the Vindelici, "the Vindelici worship Fortune, and putting her idol in the most eminent situation, they place a horn in her right hand, filled with that beverage, made of honey and water, which by a Greek term we call hydromel. . . . Wherefore, on the last day of November, sitting round in a circle, they taste it in common, and if they find the horn full, they applaud with loud clamours, because in the ensuing year, Plenty, with her brimming horn, will fulfil their wishes in everything; but if it be otherwise, they lament." This, again, can hardly be separated from the horn of Amalthæa, which was borne by Fortune or Tyche.

Further, we may take back this goddess with the horn to the cave-man age. The female figure in relief on limestone rock at Laussel, in the Dordogne, holds out a horn in the right hand. The head has been strangely misunderstood, as a bearded woman without any hair on the head; it is obviously a featureless face looking to the horn, with long hair down to the shoulder. Why an elaborate carving of this kind on rock should be made is easily understood if it was for the honour and propitiation of a goddess of fortune (*L'Anthropologie*, 1912, p. 129, also in Parkyn, *Prehistoric Art*, Pt. V). The woman with the horn seems then to be a primitive deity, widely worshipped in Scythia and in Germany down to 1000 A.D., and from northern influence the sources of the Fortuna and cornucopia of classic art.

We are accustomed, owing to disuse, to regard the Maypole as merely a casual feature of a village. But it was much more than that, for we read—

"Happy the age and harmlesse were the dayes

When every village did a Maypole raise"

(Pasquill's *Palinadia*, 1634, quoted by Hone, *Every-day Book*). The maypole was

repeatedly called the "idol" of the people by the Puritans. As the centre of rustic ceremony it marked the centre of an independent worship. Thus the maypole would constitute a village status, as a church did subsequently. To this view we are drawn by a very remarkable passage in a decree of Pepy II in Egypt, when he constituted a new village as an endowment for the service to his statue. The village was to be clear of all claims for service which fell on surrounding villages and property, it was to be an independent community, and on granting it these privileges the king adds, "and my Majesty has ordered to be set up a mast of foreign " wood (fir?) in this new village" (*Comp. Rend. Acad. Inser.*, 1916, 328).

To take now some artistic connections. It is so usual to see plait borders to Roman mosaics that we take for granted such a type. But from Pompeii not a single plait, or even twist, border could I find in all the Naples museum. Such patterns had not reached Southern Italy in the first century; they came from an outside source. Among the sculptures strewing the Forum of Rome are many from the buildings of Theodoric. There amid all the strongest classical influence, with workmen accustomed to classical designs, under a king who desired above all to maintain classical civilisation, Gothic art was so strong that it was entirely followed, and the decoration is of the twisted and plaited patterns which characterise the work of the Goths. I have searched almost every church of the pre-Lombard age in Italy, and obtained every photograph accessible of that work; not a single example of the angular plait or interlacing occurs in that age. The rounded or osier plait is universal, from the screens of San Clemente to the basket-work capitals of Justinian. The rounded plait or interlacing is the mark of the Goth. So soon as the Lombard arrives the angular plait comes in, and soon dominates all Italian decoration. It seems to have been due to using rushes, or a material which would not bend in close curves like the osier.

Why, then, should this style of interlacing work come into use in Roman mosaics of the second century? It was probably due to the quantity of Dacian prisoners of Trajan, and of Marcomanni and Quadi, brought by Aurelius. Such prisoners could be safely trusted to do mosaic work with but poor tools and little supervision, locked up in a building. Their national taste appears in the borders and subsidiary parts of the decoration. At Woodchester, where there is hardly a trace of osier pattern, the coinage goes back to Hadrian. At Brading, where there is more osier plait, the coinage begins with Gallienus. At Harkstow, where the plait is widest, it is noted that the peaked saddle represented belongs to the Lower Empire (Morgan, *Romano-British Mosaic Pavements*). The fine pavement from Carthage, with head of Ceres, is certainly early, as other Roman pavements occurred several feet above it; there is no plait, or even a twist, pattern in it. So far as a few references will take us, the plait seems absent from the earlier mosaics, but that is a wide subject for exact research by the specialist in Roman dating. In another line, in Irish ornament, the plait is unknown till after the visits of the Norsemen; all the earlier decoration is of Bronze Age spirals.

Why, then, should the plait belong to Gothic work? The explanation appears in a painting by Verestchagin of the interior of a Kirghiz tent. There screens of interwoven sticks are seen to be the necessary part of a nomad's furniture, to hold the tent sides in place against the wind. Anyone who has lived in a tent will appreciate this; and the earliest and finest Gothic interlacing is expressly on the pierced marble screens in churches. The plaited osier is the mark of nomad life; and it is this pattern which belongs to Central Asian civilisation, cropping out in Hittite and in Assyrian decoration.

A similar case of the influence of captive craftsmen is seen in the pottery lamps. It is accepted that the OC ornament on the spouts is unknown before the

time of Cæsar. That ornament is late Celtic, and it was, therefore, brought in to Roman pottery by the Celtic prisoners from Cæsar's campaigns, who could be safely turned on to pot-making.

Lastly, let us look at a question of mythology. The *Nibelungenlied* is so familiar in its German dress that it is credited too often as a German production. It is agreed, however, that the Icelandic version gives an earlier and finer form of it. I shall here quote from the translation of Magnússon and Morris, but shall not attempt to analyse it, only to suggest an element in its formation. The Huns are the mainspring of the whole work. The purpose of sinking the golden treasure in the Rhine is to prevent the Huns having it (p. 231, ed. Scott). The Volsungs were kings over Hunland (p. 5), Sigmund was king of the Huns (p. 36), Sigurd his son likewise (pp. 124, 179, 195); Budli was a Hun king, Atli—the great Attila—was his son, and Brynhild his daughter (pp. 97, 121). In the song of Atli are many statements of his being king of the Huns (p. 227). All this may be well known, but the obvious conclusion that the Brynhild story is a Hun folk legend seems hardly realised. This does not refer to the Teutonic Hunaland, as Attila is a main figure. It has been too often assumed that the Huns were mere savages. Yet the description of the magnificent wooden palace of Attila, like the great wooden buildings of Japan—the rich embroideries worked there, the trappings mounted with gold and jewels, the wife of Attila in her palace receiving the Roman embassy, and the precise ceremonies of the court—all show that, however distasteful the Hun was, he had a civilisation fully developed to his manner of life.

Now, what are the obviously mythologic elements linked up with the traditional Attila? His sister Brynhild is a war deity: "She fared with helm and byrny unto the war" (p. 80); "for ever will she hold to warfare" (p. 83); "She answered in heavy mood from her seat, whereas she sat like unto a swan on billow, having a sword in her hand and a helm on her head, and being clad in a byrny" (p. 96). She is wrathful: "Go see her and wot if her fury may not be abated" (p. 105); "Ah, to thee will I tell of my wrath" (p. 105); "from the eyes of Brynhild Budli's daughter flashed out fire, and she snorted forth venom" (p. 121). She strove to kill her lover, Sigurd, who had allowed Gunnar to supplant him (p. 97). Lastly, there is the grand poem of the Hell-ride of Brynhild:

"And so folk say that Brynhild drove in her chariot down along the way to hell, and passed by the abode where dwelt a certain giantess, and the giantess spake:—

"Nay, with my good-will
Never goest thou
Through this stone-pillared
Stead of mine.
More seemly for thee
To sit sewing the cloth,
Than to go look on
The love of another."

This giantess is, therefore, the doorkeeper of hell, with whom passes the colloquy with Brynhild.

Here, then, appears a maiden warrior, devoted to war, fierce and wrathful, yet pivoted in her love to the lover whom she slays, finally descending into hell, challenged by the gate-keeper. Every one of these characteristics is equally true of Ishtar.

Ishtar is figured with bow and arrows, standing crowned; she holds the captives by a cord; she has spears or arrows radiating from her: "She was conceived of as a virgin, or at all events, a goddess who might indulge in amours so long as they did not lead to regular marriage" (Sayce, *Religions of Egypt and Babylonia*,

p. 340); a parallel position to Brynhild with Aslaug, her daughter by Sigurd (*Volsunga Saga*, p. 97). Ishtar loved Gilgames, but he taunts her with the miserable end of all who had loved her in the past, so she demands from her father vengeance on Gilgames (Sayce, p. 434). Ishtar retained her independent personality with as much tenacity as the gods (Sayce, p. 332). Ishtar belonged to the non-Semitic population (Sayce, p. 337). Lastly, Ishtar is, perhaps, best known by the legend of her descent into Hades, and the challenges of the successive gate-keepers.

The position seems to be that a warrior goddess, with lovers but never married, who forced her way into hell, was an idea of a Central Asian people; that this was transformed into Ishtar by the peoples who pressed down in pre-historic days into Babylonia; that it was carried in some form westward by the Huns, and transformed into Brynhild by the Norse ethics and customs; and it was finally treated by the Germans much as Malory treated the Arthurian legends.

Such are a few of the dim links between North and South which may some day serve to join up the two great streams of ancient history.

W. M. FLINDERS PETRIE.

New Zealand: Ethnography.

Skinner.

The Maori Hei-tiki. By H. Devenish Skinner.

105

In a paper which appeared in the *Journal of the Royal Anthropological Institute*, Vol. XLVI, p. 309, I endeavoured to throw light on the problem of the origin of the Maori pendant called "Hei-tiki." In the course of the paper I made the following statement: "Karl von den Steinen . . . has reached a conclusion arrived at independently by the present writer. This conclusion is that the disproportionate size of the head, the slant at which it is set, and the curved legs depend not on a realistic representation of the human embryo, but on the proportions of the greenstone adze."

Mr. Henry Balfour has written to me that General Pitt Rivers recognised some 50 years ago the influence of the adze on the form of the typical hei-tiki, and has asked me to give Pitt Rivers priority in this regard. This I am only too glad to do. Pitt Rivers' statement has not been published in any of his papers, but occurs on his original printed label attached to a specimen in his collection. It runs as follows: "Tiki, New Zealand. The form of these images, always sharp towards the feet of the image, suggests the idea that, like some Carib axes, they may originally have been derived from celts, ornamented with a human figure." Mr. Balfour adds: "The specimen in greenstone has a well-defined, sharp cutting-edge. When I was arranging the tikis in the museum some 25 years ago, I placed two more alongside of the one referred to, in order to show the eventual loss of the cutting edge, through its interruption by projections concerned with the feet. My idea was that the adze-blade itself was probably symbolic (as in Mangaia, &c.), and that an anthropomorphic design was grafted upon it, possibly to increase the symbolism. The net result being that the adze ceased to be functional and became the vehicle of the anthropomorph. I quite agree with you that . . . there were hei-tiki before celtiform examples. The hei-tiki already existed in other forms, but the idea seems to have been grafted on the adze, whose essential form reacted upon the design and created the distortion of the latter."

Since writing the paper on hei-tiki fresh material and further consideration have somewhat modified the conclusions there stated. Mr. Best states: "The hei-tiki, it is believed, represented the human foetus, and was supposed to possess an inherent fructifying influence when worn by women. This statement has been made by several natives, also by Colonel Gudgeon, Captain G. Mair, and

"Mr. T. E. Green, all good authorities on matters connected with the Maoris."* Such an array of authority is decisive, and disposes of the doubts on this point expressed in the paper. At the same time it does not invalidate the evidence there adduced as to origin.

Since the publication of the paper I have received from the Bernice Pauahi Bishop Museum a photograph of a headless anthropomorphic pendant in bone from Chatham Island. This is closely allied to the greenstone forms figured and has a very important bearing on the problem of the age of this type of pendant.

Finally, fresh evidence indicates clearly that the ribs shown on some hei-tiki have no original connection with the forked tongue, but are independent and perhaps relatively more ancient.

H. DEVENISH SKINNER.

REVIEWS.

Babylonia and Assyria: Folklore.

Spence.

Myths and Legends of Babylonia and Assyria. By Lewis Spence. 8vo., 412 pp., 41 Illustrations. 8s. 6d. Harrup. 1916.

106

This work is of a type different from any that have yet touched on Babylonia. The author has written works on the mythologies of Mexico, North America, Egypt, the Rhine, and Brittany. It is obvious, therefore, that he writes as a compiler whose wide view gives a value to what must be dependent on the original research of others. As a whole the book is well organised, the authorities quoted are generally trustworthy, and, with a keen sense of what will be of general interest, there is but little playing to the public. An excellent feature is a descriptive index of thirty pages, serving as a general glossary. Such a work will certainly fill a gap in current literature, and introduce many ideas and comparisons where they have not been familiar. There are 26 good illustrations, a few tolerable fancy pictures, and a set of coloured travesties, which should be at once removed from the book to prevent misunderstandings. Without the latter pictures, we hope this will be widely read.

W. M. F. P.

India: Archæology.

Hunt.

Hyderabad Cairns. By E. H. Hunt, M.A.

107

We have received Part 2, 1916, of the *Journal of the Hyderabad Archæological Society*. It contains much valuable and well illustrated matter, but that which will most interest anthropologists is an account of cairns which have been explored at Raigir, Dornakal, Balanagar, and Maula Ali. These are but a sample, taken as it were by chance out of groups varying in number from a few to many hundreds, which are, however, only found on "muram" soil, "muram" being the main disintegration product of granite. The sides of the tombs consist of granite slabs, from 6 feet to 10 feet long, and 5 feet to 6 feet high, the end stones fit in between the side stones, and that to the north is the tallest, projecting well above the side stones; the top is covered with slabs to form the roof, and under all is the floor stone. The side stones are not vertical, but incline towards each other, leaning against the wedge-shaped head and foot stones; these also incline slightly toward each other, being kept apart by the roof stones. The greater the outside pressure the greater the stability; the design admits of no improvement. The cists are set in pits in the ground and are covered with a heap of stones and rubble surrounded by a circle of stones, rather of a boulder than a pillar shape; the diameters of the circles hitherto noted vary from 11 feet to 42 feet, the number of stones varies from thirteen to forty, but twenty-four is a common number; in some circles the stones are small, while in others none would weigh less than a ton,

* *Dominion Museum Bulletin* No. 4, p. 165.

some have large central stones, the largest of which cannot weigh much less than 25 tons. Many of the circles have been broken up by "waddars," and are entirely demolished. Pots and iron sickles have been found in the "muram" filling, surrounding the cists, which is very hard. Rounded red pots with lids, black dishes without lids, and finely glazed vessels of other shapes are found in the cists, some of these have marks upon them which may have some meaning; a copper cup, a copper ferrule, several iron daggers with fluted handles, and numerous iron implements have also been found. The bones discovered are very fragmentary, but seem to have been those of people about 5½ feet high. There are no legends connected with the cairns. The Society (which was founded in 1915 by the late Sir A. F. Pinhey) intends to investigate as many of the cairns as possible, and with particular regard to the position of the bodies and the orientation of the cists. It may be congratulated both on its work and on the journal in which that work is recorded.

A. L. L.

Archæology.

Minns.

Scythians and Greeks: A Survey of Ancient History and Archæology on the North Coast of the Euxine from the Danube to the Caucasus. By Ellis **108**
H. Minns. Cambridge University Press. 1913.

The scope of this most scholarly and comprehensive volume is explained by the author in the first words of his preface, namely, that it is "a summary of what is known as to the archæology, ethnology, and history of the region between the Carpathians and the Caucasus." This programme is a very wide one, and will no doubt attract the classical scholar, who is more and more anxious to have an ethnological interpretation of Herodotus and other classical writings; it will attract the archæologist, who is also growing impatient to know to whom the South Russian burial and other remains belong; and above all it will attract the ethnologist, who can scarcely study the present inhabitants of the steppes of Southern Russia without the assistance of history and archæology. Thus it is the student of historical ethnology who will be most grateful to Mr. Minns for his labour, and it is from this point of view that we propose to deal with the book. We have the more right to do so, seeing that an appreciation of it from the archæological standpoint, by Sir Hercules Read, has already appeared in MAN, 1917, 1.

It was the bronze and other antiquities of Siberia that formed the subject of Sir Hercules' notice, though this region was of secondary importance in the author's scheme. Mr. Minns tells us in his preface "the unity of the Asiatic and European steppes has led me on occasion right across to Siberia, Turkestan, and China without any feeling that I was trespassing beyond my borders" (p. vii).

From the point of view of a student of ethnology this decision of the author cannot be considered a very happy one. What we need most of all now is to clear up some of the old errors confusing the peoples and tribes who have at various times inhabited the steppes of the present Southern Russia, and this can only be accomplished by a series of monographic works, each limited to one race or at least to one political unit, and restricted in time and in region. Thus, to deal with the peoples in the vast region stretching from the Carpathian Mountains to the Orkhon Valley in Northern Mongolia, during the long period from the time of the Chinese dynasties, T'ang and Yü (2356-2208 B.C.) to the accounts of our modern travellers, is a task almost too dangerous to face. No doubt such are the limits necessary for tracing and defining the Scythians, and yet it is precisely owing to this method of dealing with the Scythians *en bloc* that their racial composition cannot as yet be defined. We regret that a writer of Mr. Minns' classical training, knowledge of

languages, and wonderful intuition in finding sources of information, did not limit himself in time and space for the benefit of students. It is, of course, only a question of the structure of the book, not of the contents, because even the very hasty and disproportionate chapter (Chapter VII, pp. 130-149, "Pre-Scythic Remains in South Russia"), dealing with the Palæolithic Age in Russia, is very correct, though not complete.

The same may be said about Chapter IX, "Siberia and Other Countries adjacent to Scythia" (pp. 241-261). The subject of Siberian antiquities in general, and the ancient culture of Minusinsk in particular, has only just begun to be worked out adequately, and hence any comparison must stand over till the various types of the different Siberian cultures are better defined, though the author is perfectly justified in going to Siberia for the purpose of tracing the influence of Greek art.

On the whole, however, the similarity between the Siberian and South Russian steppes does not imply the identity of their archæology and ethnology. (See MAN, 1917, 86).

For a more ethnological interpretation of Siberian archæology than that given by Mr. Minns, the student might well turn to *Unknown Mongolia*, by Douglas Carruthers (pp. 48-72), a work published in the same year as Mr. Minns' book, though the latter was obviously written some years earlier. But it must be remembered that Mr. Carruthers' conclusions on questions still open to discussion (e.g., Who are the Uriankhai people?) are inclined to be more hasty than any of those which can be imputed to the author of *Scythians and Greeks*.

The fact that two British writers on areas as different as Southern Russia and Mongolia, cannot avoid referring to Siberian antiquities, seems to point to the need for a large monograph in the English language, giving a full account of all that is known of the archæological remains of this region. This would be a useful supplement to the extensive literature in English which centres round the work of Sir Aurel Stein.

Passing now to the main object of the book, we find a very full and vivid exposition of the Scythian problem, and of the geography and ethnography of the Scythians as described by ancient authors, especially Herodotus, and as found in the "Scythic" remains of Southern Russia. Mr. Minns' intimate knowledge of Russian archæological literature has enabled him to treat the latter point very fully.

There is also a chapter on the tribes adjoining Scythia, and a short summary of the old Chinese descriptions of their north-western neighbours. The author draws a parallel between this information derived from the ancients, and that given by mediæval travellers, such as Marco Polo. It would, of course, have been most profitable if he had made more use of the modern Russian monographs on separate North Asiatic races, which the old authors confuse under the name of North Asiatic Nomads, or Mongol-Tartars. He might then have altered his opinion that "Turkish comes to the same thing as Mongolian" (p. 48).

One sentence in particular shows very clearly the fine anthropo-geographical spirit of the author: "The characteristic dress of the Scyths which struck the Greeks so much, is almost the only possible one for a nation of riders living in a cold climate; so, too, the use of various preparations of mare's milk, butter, kumys and cheese, the felt tents, bows and arrows, curious methods of cooking, owing to the absence of proper fuel, were conditioned by their general mode of life, and could be nearly paralleled among any nomad tribe" (pp. 47-48). How many different authors have taken all these characteristics as peculiar to the nomad Scythians and the Mongols?

Of all the departments of Ethnology, it is that of art and technology that has the fullest exposition in Mr. Minns' book, in the sections dealing with Scythian art and the influence of Greek art upon it.

The transliteration of Russian is most fortunate, and the author must be congratulated on this point, for the method of transliteration used in English scientific literature is apt to be defective and confusing, too often representing Slavonic words according to a German system.

Congratulations must also be offered him on the score of the maps, plans, and illustrations, all of which, like the text of the book, impress the reader with their correctness.

The bibliography is full and well chosen. It is to be regretted that Professor Rostovtsev's monumental volume on the antiquities of Southern Russia, based on new excavations, came out only in 1914, too late to have been used by Mr. Minns.

Mr. Minns disagrees with K. Neumann's Mongolian theory, as well as with Müllenhoff's Iranian theory, of the origin of the Scyths, and points to Southern Siberia, saying "until the affinities of that civilisation and of the tribes that were influenced by it have been cleared up, the final word cannot be said on the position of the Scythians" (p. 97). We might go further and say that we cannot define the position of the Slavs, the Finns, and indeed of most of the European peoples, until the task indicated by Mr. Minns is accomplished.

M. A. CZAPLICKA.

Ecuador: Anthropology.

Jijón y Caamaño.

Contribución al Conocimiento de los Aborígenes de la Provincia de Imbabura en la República del Ecuador. Por J. Jijón y Caamaño. (Estudios de Prehistoria Americana II.). Madrid, 1916. **109**

The investigations described by the author in this elaborate monograph were carried out in the years 1909-1911. He estimates from the measurements of bones obtained from prehistoric burials that the stature of the ancient inhabitants of the province of Imbabura was about 1,620 mm. for men and 1,510 mm. for women, being thus considerably taller than the modern inhabitants of the province, whom he found to have a stature of 1,530 mm. for males and 1,410 mm. for females. He found that the tibia was 86.8 per cent. of the femoral length in ancient males and 83.9 per cent. in ancient females. The tibiae were flattened, having an index varying from 63 to 75. He obtained from the *tolas* excavated only a small series of skulls—three of males, three of females, and four of children, all of which had been artificially deformed. The male skulls had a maximum length of 169 mm., a maximum width of 138 mm., and an auricular height of 126 mm. Their faces were of moderate width, the bizygomatic diameter being 130 mm., and of moderate length, the nasio-alveolar length being 70 mm. The noses were relatively wide, 29 mm. The nasal height was 52 mm. The three male skulls, on which these measurements are based, were found in *tolas*; another limited series was obtained from well-like graves, but there is no essential difference between the people who buried in mounds and the people who buried in the well-like graves. The author describes his observations at great length and gives numerous excellent plates to illustrate his discoveries, both of the bones and of the figures and pottery found in the graves.

A. K.

Secret Societies.

Newland.

Sierra Leone: Its People, Products, and Secret Societies. By H. O. Newland. Pp. xviii, 251. London: John Bale. 1916. Price 7s. 6d. net. **110**

The author of this work appears to have spent four or five months in Sierra Leone, and wrote this book, as he informs us in the preface, for no particular purpose. Despite a somewhat pretentious title, criticism might be disarmed by this avowal, were it not followed by this statement, that "as historian and sociologist, I

"have naturally given particular attention to the ethnology, customs, and pursuits of the people."

Occasionally we find fairly detailed information, *e.g.*, on circumcision, which the author describes after witnessing the rite; but as a rule the author's information is incomplete, and he omits to state where particular customs are practised, apparently under the belief that local variations do not exist.

As an example of his method, or lack of it, we may take his chapter on Secret Societies. Eleven pages is little enough to devote to a subject proclaimed on the title page as one of the features of the book, and of these eleven pages three are devoted to general reflections of little or no value. Of the remainder some twenty lines is devoted to the Kofung Society, information as to which is readily gathered, and we are told that it is found among the Limba and Koranko and "some western tribes"; the Timne, who lie south of the Limba, have it; but the Susu, who are the only other "western" tribe, have not, so far as I know.

In addition to Bundu, Yassi, and the Leopard Societies, the author describes Poro, and claims to have inquired into it with some fullness. He has little or no information unpublished by Alldridge, and he does not realise that not only are there differences between Timne, Mendi, and Bulom Poro, but also even from chieftdom to chieftdom within the tribe. He confuses Simo, the Susu Society, with Poro, which he classifies under three main divisions, "religious or mystical, civil or exemplary, and "Semu, apparently confined to the Susus and some of the Temnes, which is better "imagined than classified" (!) This cryptic utterance is left unexplained. On page 75 the author informs us that he obtained the facts about Poro from a Timne; the facts given in the chapter, however, relate to the Mendi Poro; further comment is needless.

N. W. THOMAS.

America: Indian Records.

Wraxall.

An Abridgment of the Indian Affairs. By Peter Wraxall. (Harvard Historical Studies.) Edited by C. H. McIlwain. Cambridge, U.S.A. 1915.

111

This work contains Wraxall's *Abridgment of the New York Indian Records*, written in 1754, and now edited, with a historical introduction by Dr. McIlwain. The introduction deals mainly with the early fur trade and with the dealings between the Colonists and the Indian tribes previous to 1751. This is a valuable document for the history of the American colonies, and no doubt items of anthropological interest might be found in the record. Its interest is, however, almost purely historical.

M. LONGWORTH DAMES.

Africa, South: Linguistics.

Stirke: Thomas.

A Comparative Vocabulary of Sikololo-Silui-Simbunda. By D. E. C. Stirke, Native Commissioner, Nalolo, Barotseland, and A. W. Thomas, Acting Head Master, Barotse National School. London: John Bale, Sons, and Danielsson, Ltd., 83-91, Great Titchfield Street, Oxford Street, W. 1916. 40 pp.

112

In this little book of forty pages Messrs. Stirke and Thomas have provided some useful material for the student of the tangled languages of the Barotseland corner of Northern Rhodesia. Of the three here given, the Si-kololo represents the current speech of Barotseland, a corrupted form of the language of the Ma-kololo tribe of Ba-suto, who overran the country from the south and imposed their language on the inhabitants. The original population was the A-lui, whose name, corrupted by the Ma-kololo into A-lozi or Ba-rozi, was the origin of the term Ba-rotse, given by the first missionaries. Thus the Si-lui vocabulary here given may be taken to represent the original but now almost extinct language of the Ba-rotse people. The Si-mbunda represents the language of the most important western people absorbed by the Ba-rotse, the Ba-mbunda in the south-eastern corner of Portuguese West

Africa. The sounds of their language are described as difficult, and hence the orthography is only approximate.

In an introduction the relations of the three tribes are discussed, and the vocabularies are arranged under the English words. It would have been advantageous to have included the numerals, and to have given some indication of the sounds of the letters.

The authors hope to follow up this vocabulary with similar lists showing the languages of other tribes of the region who are more or less subject to the Ba-rotse.

The book is a useful contribution to Bantu Philology. SIDNEY H. RAY.

Australia: Anthropology.

Berry: Robertson.

Dioptrographic Tracings in Three Normæ of Ninety Australian Aboriginal Crania. By Professor R. J. Berry and Dr. A. W. D. Robertson, in the **113**
Transactions of the Royal Society of Victoria, Vol. VI, 1914.

This work, though it should be brought to every anthropologist's notice, does not lend itself to a critical review.

It is a most valuable collection of life-size tracings of Australian crania, admirably reproduced, and got up in the best possible way.

With only six exceptions, they were taken from natives in the Murray River region, and I notice and sympathise with the authors' decision to refrain from sexing the skulls. The only point I would make is that, as they probably have more experience than anyone else, a tentative expression of their opinion on this subject would have been valuable.

I earnestly hope that this will not be the last series of the kind, and that other physical anthropologists, having like opportunities, will adopt the same methods, and give us accurate dioptrographic views instead of sketches or photographs.

One word of warning may not be amiss to those intending to use full face dioptrographic tracings; it is that, though the tracing gives the actual height of the orbit, it does not give the actual width, but 2 or 3 millimetres less. One cannot, therefore, use these tracings for determining orbital indices, and it might save trouble if a short caution accompanied future publications of the kind.

F. G. PARSONS.

ANTHROPOLOGICAL NOTE.

Pinhey Memorial Medal.

114

The Hyderabad Archaeological Society, on the 21st April, 1916, decided that a gold medal be instituted to commemorate the memory of Sir Alexander Pinhey, K.C.S.I., C.I.E., the founder and first president of the society.

Regulations.—(1) The "Pinhey Memorial Gold Medal" shall be awarded triennially for the best work on Deccan Archaeology or History, in accordance with the subjoined conditions. (2) The competition shall be open to scholars in any part of the world. (3) Competitors shall submit a thesis on any subject chosen by themselves relating to Deccan Archaeology or History. The thesis should be an unpublished work, or, if published, it should not have been published more than two years before its submission for the Pinhey medal. (4) Theses for the first competition will be received up to the end of October 1918, and subsequently in the October of every third year, i.e., in October 1921, 1924, and so on. (5) If the selected thesis is an unpublished work, the Society, at the recommendation of the Council, shall have the right to publish it in the Society's *Journal*. (6) If in the opinion of the Council none of the theses submitted in any year are of special value, the medal shall not be awarded in that year. (7) If thesis is written in any language other than English, the competitor shall furnish an English translation thereof.



ANTIQUE BRONZE FIGURE FROM SILCHESTER.

ORIGINAL ARTICLES.

Archæology.

With Plate L.

Peake.

Antique Bronze Figure from Silchester. *By Harold Peake.*

115

The little figure shown in the plate has recently been acquired by the authorities of the Borough of Newbury Museum from the collection of Mr. Joshua Brooke, of Marlborough. It is said to have been found at Silchester, and has all the appearance of being contemporary with the Romano-British town of Calleva.

It is of dark bronze, in an excellent state of preservation, and is 12 cm. in height. It represents a male deity or lar, standing erect, with the head surmounted by a sun with twelve rays. The right hand holds three ears of some grain, probably wheat, while the left, which is raised to the level of the shoulder, but with the elbow flexed, is bearing what seems to be a crescent moon attached to a handle.

Standing in the centre of the crescent is a small figure with two faces, the head surmounted by what appear to be a pair of short horns. On the front side the figure, which is male, has the right arm bent, with the hand on the chin, while the left arm is behind. On the other side there are two arms, hanging down, with the hands clasped below the waist; the sex of this rear aspect is doubtful, but seems also to be male.

HAROLD PEAKE.

Finland: Magic Ritual.

Bonser.

Some Notes on the Magic of the Finns. *By Wilfrid Bonser.*

116

The religion of the Finns as portrayed in the Kalevala shows a transition state between nature worship and mediæval Christianity, which was introduced by the conquering Swedes in the twelfth century. The older religion thus displaced was Shamanism, the Finns' belief in which dated back to the time when they were still an Asiatic tribe in the steppe between the Altai and the Urals. This was a belief in sorcery; magic is its very essence, and spells are its liturgy. Many of the spells have been collected by Lönnrot in the Loitsu-runoja, but the Kalevala itself, though composed in Christian times, is the greatest written monument of Shamanism.

The Finnish Shaman was supposed to derive his power from the supreme god, Jumala, whence the Creator himself is called the greatest sorcerer.* The recital of spells is often followed by prayers to Jumala or other deities, in case the spells alone should not be efficient.

Among the "origins" given in the Loitsu-runoja is that of the wizard. It says that he was born and bred in Lapland, "upon a bed of pine-boughs, upon a pillow "made of stone." It is noticeable that while the Finns attribute great magical powers to the Laplanders, the Esthonians do the same with the Finns; it is, however, necessary in a Finnish epic that the magic of individual Finnish heroes should eventually triumph over that of Lapland. Similarly in the Kalevipoeg the magic of the Esthonian hero conquers that of the Finnish sorcerer.

A recent writer remarks, speaking of the Lapps, that "when anyone was to "enter the ranks of the Shamans he was baptized." It would seem from the Kalevala and the Magic Songs as if the Finnish sorcerers also were a fraternity into which one had to be initiated by baptism. In the Magic Songs occurs the passage, "My mother washed me naked on a nether stone, three times upon a summer night, "to become a wizard . . . a singer . . . a good performer when abroad."† A similar passage occurs in the Kalevala, in the mouth of Lemminkainen:

"My devoted mother washed me,

When a frail and tender baby,

Three times in the nights of summer,

* Rune iii, line 201 (Kirby).

† Section 14, variant e (Abercromby).

Nine times in the nights of autumn,
That upon my journeys northward,
I might sing the ancient wisdom,
Thus protect myself from danger.”*

For the successful performance of their magic rites, three things appear to have been most important to the sorcerers : night, nudity, and the neighbourhood of rocks and stones. All three occur in the above quotation, and they are mentioned in many other passages in the Kalevala. A folk-song says that the Lapp singer and magician, having seated himself on a rock, takes off his coat and turns it inside out so as to increase his powers. In summer time it appears to have been the practice to take off all the clothes so as to increase the magic still more. Lemminkainen boastfully tells† how three Lapland wizards by their spells tried to sink him in a swamp one summer night. They stood together naked on a rock to enchant him, but his own magic proved too strong for them. It was to this same fate that Vainamoinen by his magic songs doomed Youkahainen.‡ In order to release him, he sat down “on the stone of song,” and three times sang his words of magic backwards, thus dissolving the spell.

Similarly, when Vainamoinen sings his harp-songs, which overpower all who hear,§ in order that the magic may be greater, he first—

“Lays his finger-tips in order,
White and white his thumbs he washes,
Gets him on the Rock of Gladness,
Stands upon the Stone of Singing.”

And yet again in the case of the second harp, before playing upon it—

“Vainamoinen

On a rock his seat selected.”||

The Sampo is, of all things in the Kalevala, the most essentially magical. Ilmarinen searched for three days for the place in which to make it—

“And at length, upon the third day,
Found a stone all streaked with colours,¶
And a mighty rock beside it.”

He is at once satisfied, and proceeds to erect his smithy. His servants work the bellows—

“During three days of the summer,
During three nights of the summer,
Stones beneath their heels were resting,
And upon their toes were boulders.”**

The last two lines are most curious and unexpected ; one, therefore, the more readily suspects some reason for their inclusion in the rune.

It appears from the Kalevala that women in Finland shared a knowledge of Shamanic wisdom, since it is Lemminkainen's mother who initiates him into Shamanic rites. And, although from Scheffer's account in 1673 it would seem that Lapp women were excluded from participation in certain of the Shamanic ceremonies, from the evidence of the Kalevala they appear to have been very powerful in magic there also, for Louhi is styled the “Mistress” of Pohyola or Lapland, and it is her magic that the Finnish heroes have most to fear and to combat. But Pohyola has also been taken allegorically as signifying the land of the dead, and as being

* Rune 12, lines 449, *et seq.* (Crawford).

† Rune 12, lines 144, *et seq.* (Kirby).

‡ Rune 3. § Rune 41 (Whitley Stokes).

|| Rune 44, lines 232-3 (Kirby).

¶ (?) A case of sympathetic magic. Presumably it was necessary for the stone to be streaked with colours so as to procure the same result for the lid of the Sampo itself.

** Rune 10, line 315-8 (Kirby).

synonymous with Tuonela. This is indicated more clearly in some runes than in others, especially when it is the land beyond a river which it is difficult to cross.* Since, however, the spirits of dead Shamans were thought to be more powerful than living ones—for which reason the Lapps worshipped their dead relatives—the land of the dead came to be regarded as a storehouse of Shamanic wisdom.† In either case, whether we take Polyola to be the equivalent of Lapland or of Tuonela, Louhi as its mistress is all-powerful in sorcery, and the fact that she is a woman points to the participation of women in Shamanic rites: possibly they were originally the priestesses.

The reason why the sorcerer was said to obtain his milk from the land of the dead now becomes apparent:

“They are few, but they are skilful
Who can bring the milk from Mana, . . .
Secretly at night they brought it,
And in murky places hid it.”‡

This milk was sour, and new milk was obtained “from other quarters.” It, therefore, seems likely that the sour milk was not used for drinking, but for magical purposes.

There are many instances in the Kalevala of the creation of animals and birds by the sorcerers. Lemminkainen has but to rub some feathers between his fingers to create a flock of birds from them, and both he and the Master of Polyola (= Paivola) create many other living things in their rivalry in conjuring. But there is no instance of the creation of human beings in this way; presumably the sorcerer had dominion only over the animal world, and had not a similar power over his own kind. When Ilmarinen, who is able to make animals by means of his furnace, attempts also to make himself a bride, he fails lamentably. The only instance in the Kalevala of the actual production of human life is that of Lemminkainen’s restoration by his mother, but this is done with the direct help of Ukko himself, without which it would have been impossible.

Though Finnish charms were spoken and not written, it was the *word* that was all-important,* as is the case with other races. It was thought that the efficacy of the charm was lost if a single word of it was changed or omitted. Vainamoinen needed but three words to complete his magic vessel, but, owing to their not being forthcoming, he was unable to proceed with his work.§ Lemminkainen, when dying, laments that he might have escaped his fate if he had only known the correct formula for charming water-serpents:

“Two words only were sufficient,
Three at most perhaps were needed,
How to act and live still longer.”||

The Lapp sorcerers, like the mediæval witches, were supposed to have attendant spirits which had more or less animal forms. Among their shapes given by Scheffer in his Lapponia are fishes, birds, serpents, and pygmies a yard high. These spirits occur but rarely in the Kalevala, but various water-pygmyes appear as helpers of Vainamoinen in answer to his prayers for assistance to the higher powers.¶ Toruæus, quoted by Scheffer, says that the Laplanders “bequeathed the demons as part of “their inheritance, which is the reason that one family excels the other in this

* *Eg*, in rûne 49.

† Hence the visits of Vainamoinen to Tuonela and to the grave of Vipunen, in order to obtain his three lost words of master-magic.

‡ Rune 32, lines 163 *et seq.* (Kirby).

|| Rune 14, lines 419-21 (Kirby).

§ Rune 16.

¶ *e.g.*, in Ranes 2 and 48.

"magical art." This again was the case with the mediæval witches.* Magical powers seem from the Kalevala to have been inherited; Lemminkainen speaks of his being taught magic by his father, and the passage telling of his initiation by his mother while he was yet a baby has already been quoted. WILFRID BONSER.

Archæology.

Moir.

A Piece of Humanly-shaped Wood from the Cromer Forest Bed.

By J. Reid Moir.

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In the year 1897 Mr. W. J. Lewis Abbott published in *Natural Science* an account of some flaked flints found by him in the Cromer Forest Bed, which he regarded as being humanly fashioned.

Dr. W. L. H. Duckworth also, in 1911, published an account of this deposit ("Notes on the Cromer Forest Bed," *Cam. Antq. Soc. Communications*, Vol. XV).

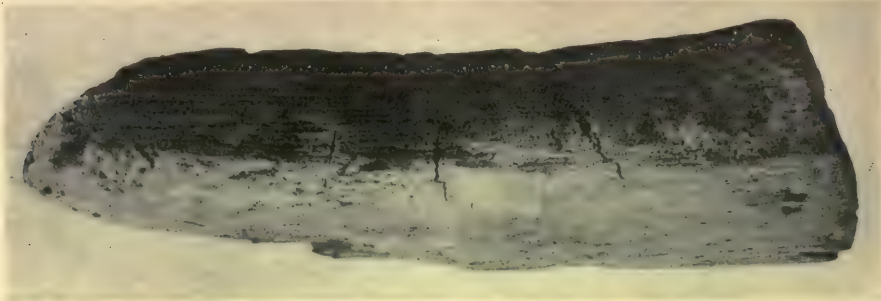


FIG. 1a.—A PIECE OF HUMANLY-SHAPED WOOD FROM THE CROMER FOREST BED.

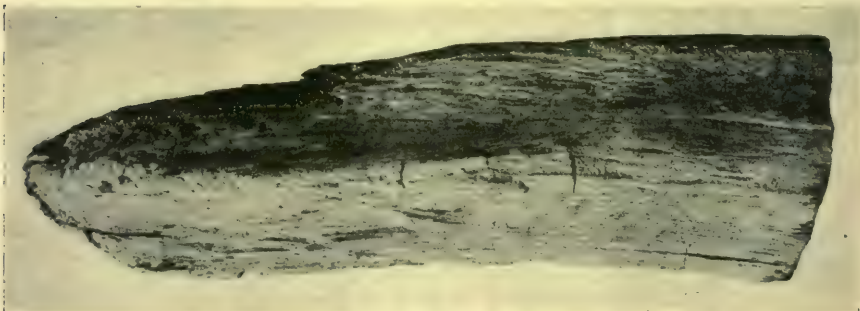


FIG. 1b.—A PIECE OF HUMANLY-SHAPED WOOD FROM THE CROMER FOREST BED.

and figured a specimen of a flaked flint of which he states that "one margin bears " marks precisely comparable to the finer working on an undoubted chert flake or " scraper (of the type of Le Moustier) obtained by me in a cave at Gibraltar." This specimen, Dr. Duckworth states, "was obtained by myself from the Forest Bed " on the foreshore at Overstrand."

The piece of wood to which this note refers was found by Mr. S. A. Notcutt, of Ipswich, who dug it out of the Cromer Forest Bed exposed at the base of the cliff south-east of Mundesley, September 1916. The beach had been recently scoured away by a storm, which removed the cliff talus. The bed in which the wood was found consisted of undisturbed sand and gravel, and was overlaid by clay *in situ*, presumably part of the Second Till. Mr. Savin, of Cromer, informs me that the

* I am indebted to Miss M. A. Murray for this information.

specimen, which I have submitted to him, is similar to some of the wood usually found in the forest bed, with which he is familiar. The specimen, as will be seen from the accompanying photographs, is slightly curved, four-sided, and is flat at one end and pointed at the other (Figs. 1a and 1b). It measures $6\frac{3}{8}$ inches in greatest length, and $2\frac{1}{8}$ inches in greatest width. The flat end appears to have been produced by sawing, and at one spot (indicated in the sectional drawing by an arrow, Fig. 2), it seems that the line of cutting has been corrected, as is often necessary when commencing to cut wood with a modern saw. The present form of the specimen is due to the original round piece of wood (presumably a stout branch) having been split four times longitudinally in the direction of its natural grain. The sectional drawing (Fig. 2) shows how the rings of growth are truncated by the splittings, and indicates, approximately, how much of the original branch was removed in the shaping process. The specimen has been identified by Dr. A. B. Rendle, F.R.S., as yew, and it seems clear that some practice and skill would be required to split a piece of such wood so that the fracture-surfaces should converge and form the desired point, and that such manipulation, together with the apparent production by sawing of the flattened end, is wholly beyond the powers of any natural, non-human agencies. The specimen has its edges smoothed by rolling by water, and is of a brownish-drab colour. The pointed end is somewhat blackened (possibly by the action of fire), and several small and superficial cuts are observable upon two of its surfaces. The use of pointed pieces of wood by ancient man has already been mentioned by Mr. Worthington G. Smith (see *Man the Primæval Savage*, p. 268), and I believe Mr. Hazzledine Warren discovered a wooden stake or spear in an ancient implementiferous deposit at Clacton-on-Sea. I may say that I was able to visit Mundesley in September, 1916, and to see and examine the interesting exposure of the Cromer Forest Bed at the base of the high cliffs, from which Mr. Notcutt's specimen was derived.

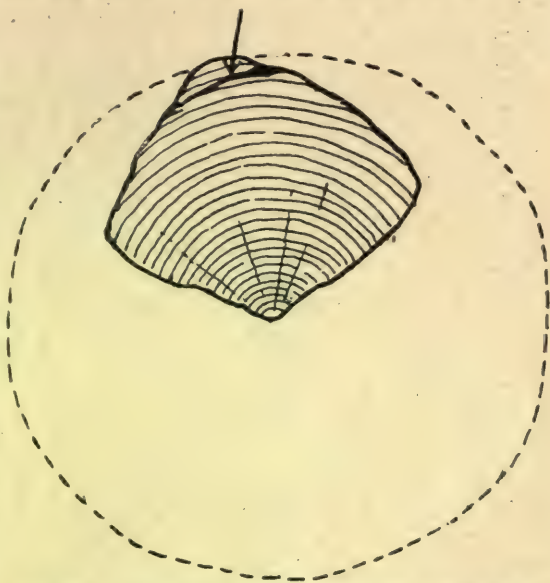


FIG. 2.—A PIECE OF HUMANLY-SHAPED WOOD FROM THE CROMER FOREST BED.

(The dotted line indicates approximately the original outline of the branch from which the piece of humanly-shaped wood was derived.)

J. REID MOIR.

Africa, West.

Secret Societies in West Africa. By N. W. Thomas.

My reviewer falls into a very natural error when he supposes that the native is responsible for the brevity of my account of secret societies. I should have been initiated into the Poro Society—which is by no means reprobated by the Government, and carries on its rites, if not in the light of day, at any rate with no more secrecy than a Masonic lodge—but for the zeal, I hope well meaning, of a youthful official, who obliged with his advice puisne judges, members of the Legislative Council, and anyone else whom their sins brought across his path. On the

Thomas.

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eve of my initiation he telegraphed to the chief, with whom I had carried on negotiations for many a month, forbidding him to let me go near Poro, Bundu, or any other sacred bush; at the same time he favoured me with a disquisition on such matters which set his youthful years in some relief. I succeeded in collecting some information about Poro, which may some day be published. N. W. THOMAS.

Central America.

Breton.

Relationships in Ancient Guatemala. *By A. C. Breton.*

119

Amongst the many interesting manuscripts collected or copied by the late Dr. Carl Berendt in Central America (during his years of political exile there, 1851-1878), and now in the library of the University Museum, Philadelphia, is a Kekchi grammar. This language, still spoken in the district of Coban, in the province of Alta Vera Paz, Guatemala, is connected with the Maya of Yucatan but has many distinct qualities. The grammar or *Arte* exists in a volume of old copies of documents in Kekchi and Pocomchi, No. 68 of Dr. D. G. Brinton's catalogue,* and is a copy made in 1741 by Juan de Morales, Maestro fiscal, from a still older one at San Juan Chamelco. It was recopied (No. 69) by Dr. Berendt at Coban in 1875, with additional notes obtained from an educated mestizo, illustrating the present condition of the language. At the end of the old copy is a list of relationships, remarkable for its fullness. Those people avoided the use of an individual's name, and therefore needed means of identifying everyone.

NAMES OF CONSANGUINITY.

Father (my)	-	-	-	in hana
Mother	-	-	-	in na
Grandfather	-	-	-	in mama
Grandmother	-	-	-	v ixaan
Great grandfather	-	-	-	in xiquin mama
Great grandmother	-	-	-	in xiquin yxaan
Great great grandfather	-	-	-	y bauh in xiquin mama
Great great grandmother	-	-	-	y na in xiquin yxaan
Uncle, brother of my father	-	-	-	yn tata
Uncle, brother of my mother	-	-	-	v ican
Aunt, father's sister	-	-	-	in na ranab in hana
Aunt, mother's sister	-	-	-	in na y chakna† in na
First cousin (cousin-brother) of my father				vican ralal in tata
First cousin (male) of my mother	-			yn tata ralal in tata
First cousin (cousin-sister) of my father				yn na y rabin y tata in hana
First cousin (cousin-sister) of my mother				yn na y rabin y tata in na
Elder brother (my)	-	-	-	vaz‡
Younger brother	-	-	-	vitzin
Elder sister of a man	-	-	-	vanab
Younger sister of a man	-	-	-	vitsin lixkaal
Elder sister of a woman	-	-	-	in chakna
Younger sister of a woman	-	-	-	in chak

* The *Museum Bulletin*, Vol. II, No. 4, May, 1900.

† *k* is used here throughout to avoid the extra letter, the hard double "c," which is also needed for Kekchi. Kak-chi might be more correct, as the early Pocomchi vocabulary spells it so, but Morales has kkek-chi, and Kekchi has been adopted by German writers, *chi* being tongue, and in Pocomchi, language. A. Recinos, of Guatemala, has Quechi.

‡ *r*, the possessive "my," would be pronounced *u*. The early writers were reckless in using *gu*, *hu*, *b*, *v*, or *u* for what was, presumably, to them the same sound, and words are often difficult to recognise for that reason. *r* is the third person possessive.

Man's son	-	-	-	nalal
Woman's son	-	-	-	nal
Man's daughter	-	-	-	rabin
Woman's daughter	-	-	-	ixkaal (or) ko
Grandson	-	-	-	in mam
Granddaughter	-	-	-	vi, in co
Great grandson	-	-	-	in xiquin mam
Son of my elder brother	-	-	-	in cahol, ralal y vaz
Daughter of my elder brother	-	-	-	yn rabin y rabin y vaz
Son of my elder sister	-	-	-	vicak, ral vanab
Daughter of my elder sister	-	-	-	vicak, rixquial vanab
Son of my younger brother	-	-	-	valal, ralal vitzin
Daughter of my younger brother	-	-	-	yn rabin, y rabin vitzin
Son of my younger sister	-	-	-	valal, valal vitzin
Daughter of my younger sister	-	-	-	in rabin y rabin y vaz in co, ral in chak
Son's son of my elder brother	-	-	-	in mam, ralal y cahol y vaz
Daughter's daughter of my elder brother	-	-	-	in mam, y rabin y cahol y vaz
Grandfather, brother of my grandfather	-	-	-	yn mama, raz in xiquin mama
Grandmother, sister of my grandfather	-	-	-	vixaan ranab in mama
Brother of my grandmother	-	-	-	in mama, raz vixaan
Sister of my grandmother	-	-	-	vixaan y chak y vixaan
Brother of my great grandfather	-	-	-	in mama, raz in xiquin mama
Sister of my great grandfather	-	-	-	ranab in xiquin mama
Brother of my great grandmother	-	-	-	raz in xiquin ixaan
Sister of my great grandmother	-	-	-	y chak in xiquin ixaan
Elder sister of my great great grandmother	-	-	-	y chak na in xiquin ixaan
Nephew, niece	-	-	-	vicak

NAMES OF MATRIMONIAL AFFINITY.

My husband	-	-	-	in belom
My wife	-	-	-	vixakquil
Father-in-law, my wife's father	-	-	-	in haa y haa y vixakquil
Father-in-law, father of my husband	-	-	-	in haa y haa in belom
Mother-in-law, my husband's mother	-	-	-	in na y na in belom
Mother-in-law, my wife's mother	-	-	-	in na ix na li'ixaquil (Berendt)
The two fathers-in-law of a couple (<i>consuegros</i>) (my fellow father-in-law).	-	-	-	vachalib, rachalib rib
The two mothers-in-law (<i>consuegras</i>)	-	-	-	vachalib
Brother-in-law, my husband's brother	-	-	-	vicham, raz in belom
Sister-in-law, my husband's sister	-	-	-	valib ranab in belom
Brother-in-law, my wife's brother	-	-	-	in bale, raz vixakquil
Sister-in-law, my wife's sister	-	-	-	vixnam y chak vixakquil
Male cousin of my husband	-	-	-	vicham raz in belom
Female cousin of my husband	-	-	-	valib y rabin y tata in belom
Female cousin of my wife	-	-	-	vixnam, y rabin y haa vixakquil
My brother-in-law's sons	-	-	-	vicak, incahol ralal in bale
My brother-in-law's daughters	-	-	-	vicak, in rabin, rixkquial in bale
My sister-in-law's sons	-	-	-	valal, ral y vixnam
Sons of my wife's brother	-	-	-	valal, ralal y raz vixakquil
Daughters of my wife's sister	-	-	-	in rabin y rabin raz vixakquil
Stepfather	-	-	-	in cahaa, y cab in haa
Stepmother	-	-	-	in ea na y cab y na

Daughter-in-law, my son's wife	-	-	valib, rixakquil y valal
My daughter's husband	-	-	in hi, y belom in rabin
Wives of two brothers	-	-	vechixk rib
Wives of one husband	-	-	vechixk yn coh na

The above is translated literally from the Spanish text. *Mama* (grandfather) was used also in Pocomechi, and applied to an elderly man as a term of respect and affection, as explained by the priest-author of the (fragmentary) manuscript Pocomechi vocabulary (written about 1685), also in the Berendt collection. He says it was the customary salutation given him by the boys he met. In Pocomechi, *mam* was grandfather and also grandson, according to the speaker, but used to grandsons and granddaughters by men only. Not many relationship terms are alike in Pocomechi and Kekchi. In Pocomechi mother is *tut*, and in Cakchiquel *te*.

Except Dr. Stoll's volume on modern Kekchi and some local study of it by Dr. K. Sapper, no serious work has yet been done on this interesting language, which differed as much from Pocomechi as Spanish from Italian, although they were spoken in neighbouring districts.

A. C. BRETON.

Ethnography.

Du Caillaud.

The Burgundian Switzerland. By F. Romanet du Caillaud, Fellow **120**
of the Geographical Society of Paris.

The modern geographers divide Switzerland into two ethnographical parts according to the languages used in those respective parts. In the west "Romand" Switzerland comprises peoples speaking a Latin language, viz., Italian in the canton of Tessin, French in the cantons of Geneva, Vaud, Neuchâtel, the greater part of Fribourg and Valais, and that part of the canton of Bern named the Jura Bernois, which, at the beginning of the 19th century, was the French Department of Mont Terrible. In the east is situated German-speaking Switzerland, which now is commonly called Alemannic Switzerland. This name is very improper ethnographically, for it pre-supposes that the inhabitants of these eastern Swiss cantons descend from the German people named Alemans. This is incorrect, for the part of Switzerland comprised in the boundaries of the Roman Province of *Maxima Sequanorum* is bounded north-easterly and easterly by the Rhine, afterwards by the Thur and the Sitter, the Rhine's affluent and sub-affluent, in fine, by the Alpine crests limiting the Rhine's source basin in the west.

The Teutonic people who settled in Switzerland at the time of the Barbarian invasions is the same as that which occupied the south-east part of France, viz., the Burgunds, or Burgundions.*

At the beginning of the 5th century the Burgunds took possession of *Maxima Sequanorum* and of the greater part of the Rhône Valley. In the conquered territory they required from the Gallo-Romans a third of their slaves and two-thirds of their lands, and then they lived on the best of terms with the conquered people.

As in their previous habitat in Germany, on the Rhine's right bank, they were principally timber workmen,† many of them settled probably in the forest districts of Helvetia, where they could continue their wonted method of livelihood. Therefore those districts lost their Celtic or Latin languages, and got a Teutonic idiom.

* Pronounce *Boorgoondions*. With that name the French, eliding the "d" of the last syllable have made *Boorgoonions* or *Bourgougnons*, becoming afterwards *Bourguignons*. *Burgundia* (pronounce *Boorgoondia*), the Latin name of the Burgunds' land, became *Bourgogne* in French by an evolution similar to that which made the French word *vergonne*, with Latin noun *verecundia*.

† *Sunt enim fabri lignarii omnes.* (Socratis *Historia Ecclesiastica*, lib. VII, Cap. xxx.)

At an earlier period in Germany the Burgunds were bordering upon the Alemans; there they fought with them because of their frontier,* and were sometimes allied with the Romans against the said Alemans.†

Morally the Alemans and the Burgunds were very different. The Alemans had in the 3rd century sent into Gaul an invading horde, commanded by their king, Chrocus. That horde committed in Gaul many cruelties, from Trèves (*Augusta Trevirorum*) to Angoulême (*Inculisma*), where they martyred the bishop, Saint Ausonius, and from Angoulême to Arles (*Arelate*), where they were finally annihilated by Marianus, the president of the *Narbonensis* Province, who captured Chrocus, their king, and beheaded him.‡

On the contrary, the Burgunds were as kind as the Alemans were cruel. They had spontaneously become converted to Christianity while they were still in Germany. While there they were often attacked by the Huns, and as they had observed that the Huns were always vanquished by the Romans, they reflected that the cause of the Romans' victories was the protection of their God, and, therefore, resolved to become Christian. They went to a neighbouring city of Gaul, and from the bishop thereof§ requested Christian baptism. The bishop ordered them to fast seven days, and, when they were instructed, baptized them.|| So the Burgunds were the first German people converted to Christianity, and were converted while still in Germany.

They were Catholic, and when they invaded the province of *Maxima Sequanorum* and the Rhône valley, they remained Catholic. King Hilperic, the father of Saint Clotilda, and his family were Catholic.

King Gondbald (*Gondebaud*), who killed his three brothers (among whom was the aforesaid King Hilperic) for usurping the whole Burgundian kingdom, renounced the Catholic faith and became Arian, with several Burgundian *leudes* (chiefs), about 480, but in 501, vanquished by the Frank king, Hlodwig (*Clovis*), who had married Saint Clotilda, he was obliged by a treaty to return to Catholicism. His son, Sigismund, favoured much the extension of the Catholic faith. Defeated by the sons of Hlodwig, he was captured by one of them, Hlodonin, Frank king of Orleans, and killed; he is venerated as a saint in the Catholic Church.

In their invasion of Roman provinces, the Burgunds and the Alemans continued to be neighbours; the Alemans occupied *Vindelicia*, the Burgunds *Maxima Sequanorum*. That occupation for the Burgunds was accepted by the Roman Imperial Government, under the condition of a military alliance. As previously in Germany, the Burgunds did not allow any usurpation by the Alemans of their frontier. So it is almost certain that the colonizing Teutonic race west of the Thur and Sitter rivers is the Burgundian race.

In 534 the Burgundian kingdom was conquered by the Franks, and became a Frank kingdom, the Burgundian people keeping their rights and being assimilated

* *Salinarum finiumque causa Alemannis sæpe jurgabant Ammiani Marcellini Historia*, lib. XVII.

† Especially in the time of Emperor Valentinian I, about 370. See Ammian Marcellin, *Hist. cit.*, lib. XVII and XVIII.

‡ *Gregorii Turonensis Historia Francorum*, lib. I.

§ That Bishop was supposed to be Saint Severus, Archbishop of Trèves (Moreri, *Dictionnaire historique*, Amsterdam, 1694, article "Bourgogne."

|| Socrates, *loc. cit.* According to Socrates the date of that conversion was the year of the 13th consulate of Theodosius II, and 3rd consulate of Valentinian III, but whereas at such a date the Burgunds were in Gaul, far from the Huns, it is probable that the said date is the epoch at which the conversion of the Burgunds was known in Constantinople. At the time of Valentinian I, about 370, the Burgunds, then in Germany, were already attracted to the Romans' religion, for then they called themselves brothers of the Romans. *Sobolem se esse Romanam Burgundii sciunt* (Ammian Marcellin, *loc. cit.*)

to the Frank people. Then that part of Helvetia lying east of the Great Emmen River was separated from the Frank kingdom of Burgundy, annexed to the Frank kingdom of Austrasia, and, therefore, united to the dukedom of Alemania, a dependency of the Frank kingdom of Austrasia. But the Burgunds inhabiting the said part of Helvetia remained undisturbed, like those of the Frank kingdom of Burgundy.

The Teutonic ancestors of the Swiss between the Great Emmen and Sitter Rivers are not Alemans, but Burgunds. Similarly Burgunds are the Teutonic ancestors of the Swiss between the Great Emmen River and "Romand" Switzerland, especially of those of the great canton of Bern. So most part of German-speaking Switzerland must be named Burgundian "Switzerland."

F. ROMANET DU CAILLAUD.

South Africa.

Torday.

The Zulu Cult of the Dead. By E. Torday.

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In his highly interesting paper on "The Zulu Cult of the Dead," MAN, 1917, 95, the Rev. A. T. Bryant states that the Baluba, in the Southern Congo, call the diviner *muLoshi*. I should like to point out that this name has never been used in my presence except as applied to the witch and wizard, to persons possessed by the evil spirit and such as practising black magic. The diviner was variously called *mpuka*, *muen*, *mutempechi*, etc., according to the character of his divination; but some of these diviners may, of course, be witches at the same time, and this fact is probably the cause of Mr. Bryant's mistake.

E. TORDAY.

REVIEWS.

India.

Sarkar.

The Folk Element in Hindu Culture: A Contribution to Socio-Religious Studies in Hindu Folk Institution. By Benoy Kumar Sarkar. Longmans & Co. 1917. 15s. net. 122

Mr. Benoy Kumar Sarkar is a Professor of the National Council of Education in Bengal. Now just as the Gaelic League in Ireland devotes its energies to stimulating the Celts to the idea that they ought to form an independent State talking its own language regardless of the facts of this commonplace world, so the National Council of Bengal is absorbed in proving to its own satisfaction that Indians belong to one nation. Of course, it is necessary for Nationalists of this type to think of India as only a Hindu India, and to forget the existence of sixty million Muhammadans. They are also obliged in default of any predominating Indian language common to the nation to express their call for unity in English. Well-wishers of India and Ireland cannot but feel regret at the loss of valuable power which might so much better be diverted to the development of the country, and to the real union of diverse communities, whose interests are bound together. At any rate, however laudable the intentions of such workers may seem to themselves, their efforts do not tend towards those logical and scientific workings of the mind which, it is essential, should be possessed by anthropologists. If a writer starts off with false premises, it is not easy to accept the rest of his deductions.

Mr. B. K. Sarkar leads off in his preface with such remarks as the following: "The religious beliefs, practices, and customs of the people are fundamentally the same in India, China, and Japan." Elsewhere he writes: "In spite of the rigidity and inflexibility of customs and social life brought about by codification of laws in recent times, and notwithstanding the narrow provincial spirit of modern educated Indians, due to the growth of habits and sentiments in water-tight administrative compartments, the soul of India is really one." After noting the above farrago of nonsense one is the less tolerant of the usual jumble of impossible tales which roused Lord Macaulay's ire two generations ago. They may

represent the beliefs of a section of the countryside of Bengal, but we are not prepared to accept them as Hindu culture or to take Mr. Sarkar as a reliable guide. It appears, indeed, that the material of this book was collected by one Mr. Haridas Patit, and that Mr. B. K. Sarkar, during what Lord Hardinge has called the anxious years for India of 1915-16, has written it up partly in the U.S.A. and partly in China, to suit the workings of his particular type of mind. AUBREY O'BRIEN.

Anthropology.

Havemeyer.

The Drama of Savage Peoples. By Loomis Havemeyer, Ph.D. New Haven: Yale University Press; London: Oxford University Press. 1916. 7s. 6d. net.

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Considered as a form of human activity that has engaged the thoughts of some of the greatest of human intellects and formed the world in which their ideas have been cast, the drama has special claims on the attention of scientific Anthropologists. Dr. Havemeyer, who is, as the title-page informs us, the Instructor of Anthropology and Geography in the Sheffield Scientific School of Yale University, has here sought to formulate and work out a theory of the origin and development of the drama. Beginning with the gesture-language that must have preceded speech, and with the desire to imitate which is universal in mankind, though not everywhere equally developed, he discerns the beginnings of the drama in the rites performed in the lower culture to ensure the food supply, which are, in effect, "appeals made to the gods and spirits through sympathetic magic"—hence mimetic. These appeals begin on the lowest plane among hunters, such as the Australian Blackfellows and the Bushmen, and continue up into a comparatively high civilisation. Dancing is found among all savage peoples; indeed, in the shape of skipping and jumping about, it "was probably of more primitive origin than the drama," by which the author seems to mean that human restlessness, resulting in playful activity and rhythmical movement, is earlier than the earliest ceremonies. There is, further, the desire to tell and to re-enact scenes of interest, first to the individual, and then to society, such as the events of a hunting expedition or a hostile raid. Beginning even before the development of language, these were expressed by signs, by imitation of the acts of the hunter and his prey, or of the fight, and as language gradually unfolded were told as stories. Puberty rites and initiation and totemic ceremonies were an application and extension of these various lines of development, and, with ceremonies performed on other occasions, they really formed a sort of sacred history of the community, or at least a representation of important events of the past. Ultimately such representations were performed merely for pleasure, and became divorced from their religious intention. As civilisation evolved, they evolved with it, issuing at length in the theatre of the Greeks and the elaborate plays of the Japanese.

The theory, which can hardly be said to be worked out with the detail it demands, appears, on the whole, to be on right lines. In the earliest stages more attention might profitably have been paid to the human play-impulse, the play-activities of the lowest culture, and the gradual unconscious hardening of dances and other performances at an interval of leisure or overflowing emotion into magical and religious rites. The rites to ensure food supply are not necessarily "appeals to gods and spirits." Begun at first their performers hardly knew why, though we may assign psychological reasons for them, they are continued very often without any definite reason beyond that they were somehow or other believed necessary. Dr. Havemeyer generalises, too, I think a little rashly, from the rites of the Arunta as to the habit of totemic groups to go through dramatic rites to increase the food-supply. Nor is it wise to speak of Australian "gods" without defining the sense in which the term "gods" is used.

It would be an interesting, and possibly a profitable, thing to attack once more the vexed question of the Attic drama, and to attempt to define the relations of the tragic, the comic, and the satyric drama. Dr. Havemeyer's line of argument seems to suggest that the satyric drama may be at the base of the evolution, and possibly the old doctrine of scholars may, after all, be right. The theory of the origin of the Japanese drama needs additional evidence and discussion, especially in view of Professor Ridgeway's argument.

These observations are intended to suggest points on which further consideration is desirable. His little book is obviously not exhaustive, but rather a popular presentation of the theme. As such it will afford an introduction calculated to interest readers, and lead them on to further researches in a direction only beginning to be explored and rich in potentialities.

Finally, however, I must be allowed to grumble. The author gives us, very properly, a bibliography of the authorities to which he refers, but omits an essential part—the date and place of publication of the works—so that it is impossible sometimes to identify and refer to them. And why use that very ugly word “societal,” when “social” or the phrase “of society” is at his service?

E. SIDNEY HARTLAND.

Burmah.

Start.

Burmese Textiles from the Shan and Kachin Districts. By Laura E. Start. “Bankfield Museum Notes, Second Series—No. 7.” F. King and Sons, Ltd., Halifax. Price 3s. 6d. **124**

This is a valuable addition to the series of “Notes” which are due to the enterprise of Mr. H. Ling Roth, who is making use of the material in the Bankfield Museum, and in other museums, to increase our knowledge of textiles and their methods of manufacture.

The textiles dealt with by Miss Start were collected a few years ago by Mr. E. C. S. George, C.I.E., and comprise garments, wallets, and a few other objects made and used by the Shan and Kachin peoples. The descriptions are clear, and the numerous illustrations play an essential part in the elucidation of a complex subject. The author makes a few suggestions as to the origin of particular patterns but has avoided speculation.

As a useful piece of descriptive technology the paper will be of service to those interested in textile ornament, whether from the artistic or the comparative standpoint.

H. S. H.

South Africa: Linguistics.

Jones: Plaatje.

A Sechuana Reader (Lipalo tsa Sechuana) in International Phonetic Orthography (with English Translations). By Daniel Jones, M.A., Reader in Phonetics in the University of London, and Solomon Tshekisho Plaatje, editor of the *People's Friend*, Kimberley; author of *Sechuana Proverbs and their European Equivalents*. London: University Press. **125**

This book marks a new departure of a very interesting kind. Some preliminary attempts at transliteration from African languages had appeared in the *Maître Phonétique* before that useful publication was suspended by the war, and Mr. Jones's pamphlet on the *Pronunciation and Orthography of the Chindau Language* (1911) was a valuable piece of pioneer work. In the one before us, he has, with the assistance of Mr. Plaatje, made a very thorough analysis of Sechuana speech-sounds, and more especially of the tones, which have been studied more fully than has ever yet been done. In fact, their existence had scarcely been recognised in this country,

though, on the Continent, Endemann and Meinhof were fully aware of their importance. (Endemann, *Versuch einer Grammatik des Sotho*, pp. 25, 26; Meinhof, *Lautlehre der Bantusprachen*, p. 86). Endemann, however, only mentions three tones, while Mr. Jones has discovered at least six. Older writers on this and similar languages, when aware of the tones, appear to have mistaken their real nature—e.g., the Rev. John Brown, (*Secwana Dictionary*, p. 6) says, “in some cases only a very slight difference in sound or emphasis distinguishes one word from another”; and even so acute an observer as Bishop Colenso, while in one case describing the phenomenon correctly, (“Some words . . . are distinguished in utterance by the voice being depressed on a certain syllable . . . Ex. *beka*, put down; *bēka*, look; *umuzi*, hemp or flax in the rough state; *umūzi*, kraal . . .”—*First Steps in Zulu*, section 17), sets it down, in another, to “stress.” (*Ib.*, section 18: “In conjugating verbs, it will be seen that the second and third persons singular are often alike in form. But a stress is thrown upon the *pronoun* in the former case and on the *verb-root* in the latter. Ex. *úyatanda*, thou lovest; *uyatánda*, he loves.”) Experience shows that it is quite easy to confuse pitch and stress, especially when unprepared for the occurrence of the former. Mr. Jones has discussed the subject of tones very fully in sections 52–81, and has printed, on p. 37, a whole text with the pitch of every syllable expressed in musical notes, which should be a great assistance towards acquiring the right intonation.

There is still a certain amount of misconception abroad as regards the script of the I.A.P., which has been used by Mr. Jones in his transliteration; and it may be well to state once more (1) that it has nothing to do with the use of “simplified,” “improved,” or “phonetic” spelling in writing English, though the two things may sometimes be advocated by the same authority, and (2) that it is designed for the use of Europeans, not of natives. Being intended for application to every language, it naturally has, on the principle of “one sound, one letter,” to include a symbol for every sound known to occur; but in practice it can be considerably simplified, as no language is likely to contain all, or even most of them. Where a language has not yet been reduced to writing, it would be well if a simple form of it could be adopted for teaching natives to read; where a recognised orthography is in existence, it will be difficult and perhaps undesirable to displace it, though some modification may be possible. The case is peculiarly unfortunate when—as at Kikuyu and elsewhere—injudiciously chosen symbols have been perpetuated by special founts of type.

Sometimes it is a question, not of one recognised orthography, but of several conflicting systems, none of which, perhaps, is entirely satisfactory. This is the case in Sechuana, which, as Mr. Plaatje points out (*Sechuana Proverbs*, p. 13), is written in no less than five different ways. Here, one would think, nothing but good could result from the abolition of all five and the adoption of the I.A.P. script, with simplifications on the lines of those indicated by Mr. Jones in sections 10, 21, 26, 36, 37, 45, 50, 64. It is a question how far it would be necessary to mark the tones for natives. At first sight, one would be tempted to say that, being familiar with the words, they could not, when recognising them in their connection, fail to give them the right pitch. But it is remarkable that, as Mr. Plaatje points out (Preface, p. ix), “the younger generation of Bechuana are to some extent losing the “original Sechuana tones. This is particularly the case in the south of Bechuana-land”; and he implies that this process might be arrested by “a study of the “phonetics of Sechuana.” One wonders, however, whether this may not be an inevitable step in the evolution of language, pitch (that is, pitch inherent in a word and distinguishing it from one otherwise similar—not the modulation of words in a sentence), being a characteristic of language in a very primitive stage. It is, for

instance, more prominent in monosyllabic languages like Twi and Ewe than in Bantu speech, where the combination of syllables reduces the possibility of homonyms, and where the stress and pitch accents subsist side by side. At the same time, it must not be forgotten that the presence of tones has often been overlooked, and they are extremely important, *e.g.*, in such a typical Bantu language as Shambala (*see* Roehl, *Schambalasprache*, 1911); and it is a remarkable fact that they have penetrated into Hausa, of which the groundwork is Hamitic, though purely Hamitic languages, such as Berber and Galla, do not possess them. They appear to exist, to a certain extent, in Ganda, though it has been strongly influenced from the Hamitic, and little, if at all, so far as one can judge, from the Sudanic side.

The fifteen texts, twelve of which are original, specially written for this book by Mr. Plaatje, will be found exceedingly useful by learners. A. WERNER.

Linguistics.

Dennis.

Elementary Grammar of the Ibo Language. Third edition. Revised by T. J. Dennis. Pp. viii, 116. London: S.P.C.K. 1916. Price 10d. **126**

This edition represents a great advance over Spencer's little work, but even now it is very far from complete. On the phonetic side there is little information; there is a long list of nouns and verbs distinguished by tone, but no statement as to the number of tones, still less as to the rules that govern their use; the rising tone heard in *fě* (to pass) and other words is completely ignored.

A number of dialects are noticed—there are perhaps nearly thirty Ibo dialects in all—and it would have been advantageous, especially in the part dealing with the verb, if the name of the dialect had been given in every case.

It frequently happens that rules are laid down on an insufficient basis; thus (page 48) certain verbs are mentioned as not affixing vowels in the subjunctive and imperative, among them *hu* (to see); but no mention is made of any suffix in the indicative, though one is commonly used, *e.g.*, *afoam alo* (To see a forbidden thing). In the Asaba dialect this suffix form has, according to an ex-schoolmaster formerly on my staff, a past signification, which is in other cases shown by a difference of tone.

Under the head of numerals, mention might have been made of the Awka usage of giving higher numbers as multiplicatives in the form "*x* in *y* places *z* times."

In a grammar, however, that does not profess to be more than elementary, it is impossible to deal at length with all possible points; it is very desirable that the exhaustive grammar tentatively promised in the preface may see the light at an early date. N. W. T.

Mythology.

Dixon.

The Mythology of All Races. In Thirteen Volumes. Vol. IX.—*Oceanic*. By Roland B. Dixon, Ph.D., Professor of Anthropology, Harvard University. Boston: Marshall, Jones Co. 1916. **127**

To publish *The Mythology of All Races* in thirteen volumes is a grandiose scheme. Any ordinary man who knows how vast the subject, what contentions are involved, what reams and reams of paper, what oceans of ink have been wasted over those contentions, and how many of them are still in dispute, would shrink aghast at the thought of it. Yet an editor has been found daring enough to conceive it, and what is still more remarkable, specialists have been found willing to assist in carrying it out.

But the first criticism that occurs to a scientific reviewer is that to treat the

mythology of a people apart from its religion and social organisation—from its civilisation—is fair neither to the people, nor to the mythology, nor to the writer, nor to the reader. The mythology of a people cannot be understood apart from the general culture and environment. To delineate it without taking these into account and setting out from them is to produce a picture that is incomprehensible. Such a presentation is, of course, not intended for anthropologists, but for the non-scientific public. Yet it may be greatly doubted how far it is of real value for that purpose. The specialist employed to make the attempt may do his best; he may be learned, skilful, brilliant. He labours on an impossible task. For he cannot convey to the reader's mind a clear notion of his subject; to the reader the social and intellectual medium in which the mythology has been produced is a blank. Consequently the mythology, when all is said and done, remains an enigma.

In the volume before us, Professor Dixon, well-equipped and brilliant as he is, has not been able to overcome this difficulty. Most readers may be presumed to know enough of geography to have a general notion of the South Sea Islands. What they need will be some more or less detailed information on the ethnology of the various groups of islands;—and that, by the very idea of the series to which the volume belongs, is denied to them. They may get it elsewhere, but not in a form that will show it in relation to the various points urged by Professor Dixon. The plates in the volume, fine as many of them are, do not help. They show figures of native gods and amulets, masks, and mythological subjects. But these have little reference to the text; and, beyond the short description fronting each plate, no account is given of them, or of the uses to which the masks and amulets are put. If we consider the part played in the life of the islanders by the performances in which the masks are employed, and their intimate relations with the religious beliefs, it becomes obvious how large a lacuna this entails in the presentation of those beliefs. The religious practices are altogether omitted.

We cannot, of course, hold the author responsible for this. It is a serious fundamental defect in the series of which the volume on Oceania is a part; and the responsibility must be laid on those who projected and those who have edited the series.

Subject to the above observations, it must be said that Professor Dixon's account of the various mythologies under review is given with considerable success. He has selected and summarised the tales with judgment. No attempt has been made to emphasise the picturesque features of the narrative—a process fraught with danger, very tempting in a work designed for “the general reader,” but only tolerable when performed with consummate knowledge and skill. His chief pre-occupation has been to trace the relationships of the mythologies of the different peoples. If, as is now generally held, the islands of the South Sea were populated by successive waves from the south-east of Asia, it is highly probable that the traditions should be found to contain common elements, and, perchance, common memories of earlier conditions. But to arrive at any definite conclusions which shall be reasonably certain requires a more profound knowledge than we have yet acquired of many of these populations, and our arguments must, above all, be guided by caution. The author recognises this, and in the preface he admits frankly that those at which he has arrived are merely provisional. To trace the derivation of a tale from country to country is doubtless alluring. But we are apt to find it too often a mirage:

“The sparkling waters

Fade into mocking sands as we draw near.”

Take the swan-maiden theme—a theme known practically all over the world. Numerous variants have been recovered from Indonesia, and a few among Melanesians and Polynesians. The author divides the Indonesian variants into two groups, of

one of which he says its "direct Indian origin is unmistakable," and that it "has spread widely wherever this early influence has come"; while the other "is native in all its essentials, although this simple and apparently aboriginal type may, after all, be a local imitation of a foreign theme." That Indian influence has played a considerable part in certain of the islands of the East Indian archipelago it would be absurd to deny: the effects are patently visible in art and in tradition. But "the type [of the swan-maiden tale] common in India and European mythology" is by no means confined to India and Europe. That its Indian origin is unmistakable is a bold statement indeed. It is found among the Eskimo; it is found in China; it is found among the Haida in Queen Charlotte Islands; and the onus of proving that it came from India lies upon those who assert that provenience. Nor, on the other hand, is this type the only type common in Indian and Europe; the variants are endless, though all based upon a common world-wide idea.

Take another type—that of the children born from a clot of blood. So far from being special to Melanesia, it is found among the Zulus and among the Black-foot of North America. The similar story of children born from a blister in Melanesia, Indonesia, and Micronesia is also told by the Masai and by the Dakota; it is told in British Columbia, in Nigeria, and in the Caucasus. It is, therefore, no peculiarity of "Oceanic tales." The incident of the pool-mirror is by no means to be confined to Melanesia and Indonesia; it is common in the south of Europe.

In the same way we might go over almost all the story-incidents in "Oceanic" mythology and show that they are of very wide—if not universal—distribution. It is very hard, therefore, to claim them as disseminated from any one centre, or to rely upon them as evidence of a specific cultural influence. It can, of course, not be denied that transmission is possible, or that it has taken place again and again. But the difficulty is to prove any individual case, apart from written evidence. And the inferences, when a case has been shown to be probable, must be drawn with discretion. For the transmission may have taken place by the fortuitous encounter of one who was a good storyteller, and hence need not prove general cultural influence. When a number of instances in the same area can be shown the claim may be strengthened. But in view of the diffusion of incidents throughout the world—and traditional tales are usually, or largely, made up of strings of incidents not necessarily dependent upon one another or on the main plot—it is practically impossible to trace the centre or the course of distribution. The reaction, natural enough, against Bastian's *Elementargedanken* has produced what is called "intensive research" in various fields. That this new method will produce valuable results no scientific man can doubt. The ultimate form and reach of those results, however, nobody can anticipate.

One more criticism, which I regret must be one of disapproval. I know not what reasons have determined the placing of the references and other notes at the end of the volume. "Leaving the pages unencumbered for those who wish only to get a general idea of the subject" is a very insufficient and unscholarly reason. Superficial readers need not bother about the notes, even if they are, as they ought to be, at the foot of the page. Readers who do require to refer to the authorities are annoyed by the continual necessity of turning to and fro, and by the difficulty of finding what they want even then; for the pages to which the notes relate are not indicated. Neither author nor editor—I cannot say which is to blame—has a right to throw this difficulty in the way of a conscientious inquirer.

E. SIDNEY HARTLAND.



A. C. Breton

FIG. 1.—CORNER OF RELIEF COVERING INTERIOR WALLS, CHAMBER C, CHICHEN ITZA, YUCATAN.



A. C. Breton

FIG. 2.—DESIGN ON A POT FROM A MOUND IN BRITISH HONDURAS, GANN COLLECTION.

CENTRAL AMERICAN DANCE SCENES.

ORIGINAL ARTICLES.

Calisthenics.

With Plate M.

Breton.

Central American Dance Scenes. By A. C. Breton.

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The scene in Fig. 1 of Plate M is an episode of the painted sculptures that covered the interior walls of Chamber C in the North Building* of the great Ball-court at Chichen Itza, Yucatan. Although much weathered, it is a vivid presentment of a player on some musical instrument singing a flowery hymn, whilst a man in a bird-mask, with his body covered with plumage, is dancing, and a similar figure claps hands. Ceremonial dancing in costume was general in ancient America, and continues so to the present day, but was not often represented in art, and amongst the many hundred human figures in the sculptures and frescoes of the ruined buildings at Chichen Itza this is almost the only example. The sculptured warriors in Chamber E (so well reproduced with their weapons and ornaments in Dr. A. P. Maudslay's plates) stand quiescent in their orderly rows, and the frescoes of Temple A and the upper chamber of the Monjas are mainly of battle scenes. Small caryatid statues and reliefs were also a prominent feature in the later buildings.

The player's instrument is so much worn that details are not clear, but it may have had strings. Strange primitive harps were still in use by the country folk in Mexico twenty years ago, and pleasant music could be evoked from them. The song or hymn may be compared with those of the two foremost personages who face the 'serpent hero in Chamber E and with that of the priests in the wall-painting at Teotihuacan, but the bird is an exceptional addition. The dancer says nothing, but the figure behind has the conventionalized serpent jaw speech.

In the drawing the joints of the stones are omitted, as they are roughly fitted and extremely worn at the corners and edges, although protected by part of the roof vault that remains. In fact, comparing their condition with that of the well-cut and fitted stones that form the external facing or veneer to the thick mass of rubble of which the walls consist, one is led to suppose that the reliefs were set up here after removal from some other spot.

An original feature is that the main scene does not occupy the whole of the principal wall of the long, narrow chamber that constituted the building, but the scenes of the side-walls overlap without any division or border line. In Fig. 1 the design is on the two sides of an inner corner.

Fig. 2 of the Plate is from a painted pot found by Dr. T. Gann in a mound in British Honduras, and is in his collection at the Liverpool Museum. The pot is plain in shape (it may have been used for libation), is nearly 16 cm. high and 46 cm. in circumference. It was coloured with a glowing pale orange tint on which the figures were drawn in dark brown and scarlet, forming a panel, the rest of the pot being covered with the dark brown, except that the back has a diagonal orange stripe that separates two orange circles 8 cm. in diameter, each containing a mystic design in brown. There are also five objects that look like sprouting seeds.

The strange creatures in the panel appear to be dancing and singing in joy for the coming of vegetation, represented by the seedling in the corner. In *Die Nayarit Expedition*,† Dr. K. T. Preuss well described the beliefs of the Cora, dwellers in natural conditions and able to see and join in the rejoicing of the creatures, and their prayers and thanksgivings at the springing up of the young corn. His translations of their hymns, and Miss Alice Fletcher's "Hako Ceremony," give a good idea of the poetic imagination inherent in the Indian. The humming bird was the especial messenger of the sun to awake and encourage vegetation, and has a prominent place

* See *Proceedings XIX International Congress of Americanists*, Washington, 1917.

† Reviewed in MAN, 1913, 60.

in Fig. 2, whilst the serpent bird hovers over the seedling. The peculiar claws of these birds are identical with those of the birds in the coloured stucco reliefs at Acanceh, in Yucatan. It would seem a natural result of watching the migrating birds in spring that man should try to imitate them in his ceremonial dances. The bird over the seedling is Dr. Maudslay's "Serpent Bird," so frequently represented in Central American art. Its tail is similar to those of the serpents in the reliefs on the great building at Xochicalco, near Cuernavaca, Mexico, the outer plumes turned in the opposite direction to the others. Thunder Bird (*Eneti*), and Lightning Snake (*Haietlik*), are seen in connection in ancient reliefs on the coast of British Columbia, where the Clayoquot retain traditions of them and their doings.*

This is not the place to work out the connections between the ideas in different parts of the American continents, but the gestures of these creatures may be compared with those on British Columbian totem poles. Bird insignia and symbols were universal. In an account of ceremonial dancing in honour of the arrival of visitors at Massett, Queen Charlotte Islands, the principal feature is described as follows:† "The head chief's headdress or *shikid* bore the crest of the tribe in front, inlaid " with mother of pearl, and surmounted by a circlet or crown of bristles of the sea " lion, forming a receptacle. This was filled with eagle or swan's down, very fine " and specially preserved. As the procession danced round in front of the visitors, " chanting a song of peace, the chief bowed before each and a cloud of the down " descended in a shower on the guest. Thus peace was made and sealed."

At the great dancing festival at Tiahuanaco, on the border of Bolivia and Peru (on the day of San Pedro, 1910, still the same as described by Squier), the dancers wore crowns of very long feathers, having the effect of the tops of royal palms, and as they danced round they bowed deeply towards the centre of the circle. Knotting feathers together in a special way with very fine thread for crowns and other dance ornaments, was practised in ancient Guatemala, apparently like those collected by A. Frič among the peoples of the Chacó. A. C. BRETON.

Obituary.

Worthington George Smith. Born 1835, died October 27th, 1917.

By Sir C. Hercules Read.

Read.

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By the death of Mr. Worthington Smith science has lost a devoted son. His long and active life was full of usefulness, and his kindness of heart and unassuming manners will endear his memory to a wide circle of friends. As his sympathies covered an extended field, so his accomplishments enabled him to present to the public the results of his unremitting labours in a form at once practical and attractive.

His artistic career started with the very sound beginning of a study of antique marbles, followed by a training in architecture. But even then his real bent was towards natural history, and the attraction of nature, beginning thus early, held his affections all his life. As illustrator or editor his activities were chiefly given to such publications as the *Gardener's Chronicle* or the *Floral Magazine*, while he published books and broadsheets on fungi, a subject of special interest to him. In these publications he had in many cases the signal advantage that, being a wood engraver of great talent, he was able not only to draw his own illustrations, but to complete the engraving himself. This he did both for his natural history articles and for those on prehistoric archæology, the side of his activities that brought him into intimate relations with our Institute. In the seventies, when living at Stoke

* "Petroglyphs of British Columbia," by C. F. Newcombe, M.D., *Victoria Daily Times*, September 7, 1907. [Newcombe.]

† Collison, *In the Wake of the War Canoe*.

Newington, he discovered a palæolithic floor in his neighbourhood, and communicated an account of it to the Institute, with ample illustrations (*Journal*, Vol. XIII), and on previous occasions he had brought similar matters before our meetings. When illness forced him to leave London for Dunstable he still pursued his study of prehistoric problems, and succeeded in laying bare another "floor" at Caddington. There can be little doubt that these two discoveries forced him to produce the admirable volume entitled, *Man the Primeval Savage*, which appeared in 1894. Here he dealt faithfully with the story of Drift man as seen at these two sites.

Large collections of implements and other remains were the natural results of his explorations, and his sense of the importance of the evidence being in a place readily accessible led him to deposit his type series in the British Museum.

From time to time he had made communications on local antiquities to the Society of Antiquaries, and twenty years ago was appointed local secretary for Bedfordshire, and of my own knowledge I can say that, in spite of the many calls on his time and his uncertain health, no one of the many local secretaries of the society could surpass him for the regularity, completeness, and interest of his reports.

For some years past his life has hung by a very slender thread, but he devoted every ounce of his strength to the work of the day, with astonishing courage and persistence, and would seem to have worked up to the last hour of his life.

One of his favourite amusements was to gather together the flakes lying on the palæolithic floors, and by replacing them upon each other in the order in which they had been struck off, to reconstitute the flint block as palæolithic man had seen it. In this he was singularly successful, and in one case at least the block is practically complete, showing only the cavity left by the completed implement, which, of course, had been taken away by its maker.

He was the writer of "Early Man in Bedfordshire" for the *Victoria County History*, and of a charming little book on *Dunstable and its Surroundings*.

Rewards and distinctions found him occasionally, a small Civil List pension among them, but the most signal honour was the freedom of the borough of Dunstable, an honour literally unique.

His life is ended, but we may rest assured that the spirit that urged him to such untiring devotion to knowledge will still live; an example so excellent must have successors.

C. HERCULES READ.

Polynesia: Ethnology.

The People of Greenwich Atoll, Western Pacific Ocean.
Sidney H. Ray.

Ray.
By **130**

The Greenwich Islands form an atoll, situated about half-way between Nukuoro (south of the Caroline Archipelago) and the north-eastern coast of New Ireland (New Mecklenburg), in Lat. $1^{\circ} 0' N.$ and Long. $154^{\circ} 30' E.$ *

The group is named Pikaram on English charts, but on German maps appears as Kapingamarangi.

Though so far to the west of Polynesia, the islanders, like those of Nukuoro, north of them, are Polynesians,† and speak a Polynesian language; but up to the present nothing has been recorded of their customs. For the present notes I am indebted to Mr. Revely Hume, of Herbertshöhe, who obtained them as answers to questions from a native named Louis Patterson, at the beginning of 1913.‡ These

* Longman: *Gazetteer of the World*. 1902. Thilenius, in "Ethnographische Ergebnisse aus Melanesien": *Nora Acta*, Bd. LXXX, No. 1. Halle: 1902, p. 14, gives the position as Lat. $1^{\circ} 5' N.$ and Long. $150^{\circ} 40' E.$

† R. Parkinson: *Dreissig Jahre in der Südsee*. Stuttgart, 1907, p. 547, gives a picture of Greenwich Island women.

‡ Cf. Thilenius, *op. cit.*, p. 35.

answers are written in the vocabulary issued by the Ethnographic Museum at Hamburg. Besides the descriptive replies and names, there are many definite statements as to the absence of certain customs and objects which are important with reference to certain theories regarding Polynesian migrations.

The group lies very low and flat, and is only from 6 to 10 feet above sea level. It is expressly stated that there are no streams and no fogs. The products are pandanus (*pinu*), coconut (*niu*), breadfruit (*kuru*), banana (*tamo*), and taro (*tara*). According to Thilenius there is no taro, and the banana was introduced by a white trader.* The following plants are definitely stated not to be found on the island: areca palm, betel pepper, gourds, casuarina, mangrove, sago, cycas, and ferns.

The fauna is as scanty as the flora. There is a rat (*kimo*), but no flying foxes, no birds of prey, ducks, or pigeons, no snakes, frogs, lizards, crocodiles, or turtle, and no butterflies, beetles, or scorpions. The common word for "mosquito" (*namu*), is given as the word for "fly" (*ramu*), whilst the mosquito is called *ti ramu kai tangat*, "the fly that bites man," and the louse *me kai tangat*, "thing that bites man."

The pig is known by its English name (*pike*), and fowls, native and European, are *tatu*, the European being *mai i tai*, "from the sea."

The people practise no tattooing or artificial deformations. Children go naked until puberty. The ordinary dress is a waistcloth of matting made of breadfruit-tree fibre worn round the hips, passed between the legs, and fastened behind. The women wear a softer quality, "same as *lavalava*."† No arm-rings or belts are worn. Flowers are worn in a small hole in the ear, and necklaces are made of European beads, but no other ornaments are worn on ear, forehead, or nose. There is no hair dress, but men stick a straight piece of stick (*tuitui*) in the hair as a comb. Women have no hair stick, and wear the hair short.

There is no collective village name. The houses (*hare*) are all of the same character and built on the shore. The bachelors have a separate house (*hare tane*). The house site is covered with fine white coral, and this forms a border about 6 feet wide, extending all round the house. The building itself is from 30 to 40 feet long and about 20 feet wide. It has no rooms, doors, or windows, and is open on all sides. When it rains mats are hung up. The framework consists of pandanus logs laid on the ground with pandanus posts (*toko*) at the corners. The rafters are made of narrow split pandanus about 15 feet long and 3 inches by 1 inch in thickness. These are supported on cross sticks of pandanus about 6 inches wide.

The building is tied together with cords made of coconut-fibre. The roofing (*tua*) is made of pandanus leaves sewn on a piece of split pandanus in pieces of 10 feet long, and tied to the rafters. Breadfruit wood or pandanus is preferred for house building. The houses are not ornamented, there are no house-building ceremonies, and all work together in making a house.

Mats are spread inside the house as a floor covering. The bed (*ti kahara*) is of pandanus matting, and the pillow is a roll of matting. A broom is made of coconut leaves. Rubbish is thrown into the sea or (rarely) burnt. Fire is obtained by friction. A piece of wood about 12 inches long has a groove cut into it, and another piece of very hard and dry wood is rubbed into the groove. These sticks are called *kau tau ahi*. There are no earthen vessels or pots for boiling. Cooking is done in the earth oven (*ti imu*). The whole family eat together at no fixed times. A wooden bowl (*ipu rakau*) is used for food, a drinking vessel (*ipu*) is made from a coconut shell. Food is seasoned with salt water.

* Thilenius, *op. cit.*, p. 16.

† Samoan *lavalava*, the calico or print wrapper worn round the loins.

Stone chisels, axes (*tarai*), and adzes (*tarai wake*) are used. Baskets (*kata*) and matting are made by the women.

Both men and women cultivate the garden for family use only. They grow taro, ganogano (a large yellow taro), and bananas.

There is no hunting because there is nothing to hunt. A trap (*ti hare kaha*) is used for catching sea-eels, and a fishing net (*ti tau*), without float or sinker, is used on the reef. There are no fish spears or deep-sea nets. A fish-hook (*matau*) is made of mussel or turtle shell, and a large wooden hook (*matau hokori*) is used to catch sharks (*tokouri*). Fish are poisoned by means of a *beche-de-mer*. The skin is scraped and turns red in the water, poisoning the fish.

The canoe (*waka*) is a dug-out with outrigger (*am*), sometimes with mast (*bou*) and triangular sail (*ra*), or paddles (*hoe*). It is steered by a paddle at the stern (*ti hoe muri waka*, the paddle behind ship). It has no fireplace or means of conserving water. Canoes are made at any time, and there are no ceremonies at the launching.

There are no fighting weapons, no bows, arrows, spears, or clubs. A quarrel between two men is settled by wrestling (*tautau*) so as to give as heavy a fall as possible. Women use sticks or any other objects to beat (*hepaki*) one another.

Dancing (*tuiu* or *rev*) takes place in a special ground (*ti tuva*). They use no masks, bull-roarers, or musical instruments. There are no secret societies.

No money is used in trading. Sale and purchase is made only by barter (*hui*)

There are no dolls or string games.

The dead are rolled up in a mat and buried in the house. A relative sleeps over the grave (*ti tab*), and wailing (*tangitangi*) is made for the dead.

The natives distinguish between demons (*ti aitu*) and ghosts (*ti karir*).

The language is unquestionably Polynesian. A short sketch of grammar and a vocabulary have been published in the *Journal of the Polynesian Society*.^{*} The vocabulary shows three classes of Polynesian words: (1) Words definitely cognate with Samoan or Maori. (2) Polynesian words which are incorrectly or inexactly equivalent to the proper Polynesian. (3) Words which appear in a kind of "pidgin" Polynesian. I append a few examples of each class:—

(1) *Rima* (arm), *ivi* (bone), *makariri* (cold), *vae* (foot), *fenua* (land), *tangat* and *tane* (man), *noho* (sit), *rakau* (tree), which are the Samoan *lima*, *ivi*, *makalili*, *vae*, *fenua*, *tangata*, *tane*, *nofo*, *rakau*. *Kiri* (skin), *pirau* (rotten), *rere* (run), *haere mai* (come), *bua* (flower), which are the Maori *kiri*, *pirau*, *rere*, *haere mai*, *pua*.

(2) *Langi* (day), *he-paki* (beat), *kaeinga* (grass), Samoan *langi* (sky), Maori *paki* (slap), Maori *kainga* (country).

(3) Words and phrases which are apparently "pidgin" Polynesian are such as the following: Ashes (*ti ahe tokoria*), fire dirt, instead of *lefulefu*; cough (*maki matangi*), wind sickness, instead of *tale*; feather (*kahu manu*), bird clothes, instead of *fulu*; sinews (*nia hare tangat*), strings of man, instead of *ua*.

Many words are of debased or uncertain pronunciation, e.g., *hokori*, *tokouri* (shark), *hanimoe*, *haere mai* (come).

The importance of Greenwich Islands lies in its position so far west of Polynesia proper. According to Churchill it was one of the earliest stations of the original Polynesian migration into the Pacific. "The region nearest to Indonesia in which we first identify this migration track is north of the equator, at Kapunga Marangi and Nukuoro."[†]

Thilenius regarded the Polynesians of this region as immigrants from Eastern

^{*} "Polynesian Linguistics: III. Polynesian Languages of the Micronesian Border. 3. The Greenwich Atoll." By Sidney H. Ray. *Journ. Polynesian Society*, XXIV, pp. 62-64 and 92-97. 1915.

[†] W. Churchill: *Sissano, Movements of Migration Within and Through Melanesia*, p. 169. Washington. 1916.

Polynesia who came in small numbers. "The peopling of the North-western Polynesian Islands quite uniformly has its origin in small beginnings, through the coming to shore of crews of, for the most part, single boats, and through infrequent raiding expeditions. The great majority of the immigrants came hither from the east, from Micronesian and from Polynesian groups."^{*}

Churchill's theory requires for its substantiation stronger evidence than that afforded by the mere occurrence at the present time of a Polynesian population in Greenwich Island, Nukuoro, or the other Polynesian Islands on the Melanesian border. These people have lost their distinctive customs (*e.g.*, kava tattooing); they have mixed their language and lost its distinctive idioms. One can hardly conceive the origin of Polynesian culture from a population like that of Greenwich Island, or the jargons of that island and its neighbours as the parent of Samoan or Maori, or any other of the Eastern Polynesian tongues. But, on the other hand, if the contention of Thilenius be right, the decay of custom and the formation of jargon is only what might be expected of a population formed by castaways and immigrants from various places.

S. H. RAY.

Folklore.

Parsons.

The Antelope Clan in Keresan Custom and Myth. By Dr. Elsie Clews Parsons. **131**

In the *katsina* or masked dances of Laguna an aged *kūūts* (antelope) clansman is always consulted, Lagunas have told me, and members of *kūūts hanoch* (clan) in the dance would always be up towards the head of the line of dancers. In explanation of this priority the following myth is related. It begins with a variant of the familiar Pueblo Indian emergence and migration myth, the coming up of the people from the ground and the origin of their *katsina*:—

"They came to a great body of water. They were going across. There were little children along. As they crossed the children were turned into water snakes and frogs. There was much weeping. As the children changed they would let them go. The chief (*goacheni*) said, 'Keep hold of them.' They held on and crossed the water. When they had crossed, the snakes and frogs turned back to children. That water was the dividing line. The *Sungoiakwecheni* (Zuñi) went to where they are now, the Acomas to where they are now, the Lagunas stayed where they are now. All remained unhappy over the loss of their first children, the children who had been lost as snakes and frogs. There was always much weeping. Those they thought had become snakes and frogs had become the *katsina*, and had gone back to *wenimatse*.[†] They saw their parents were weeping for them so they decided to have the *kumeyoish*[‡] go on ahead and tell the people that in four

* Thilenius, quoted by Churchill: *The Polynesian Wanderings*, p. 17. Washington. 1911.

† *Wenimatse* corresponds to *kothluwela* among the Zuñi. "god-town," the place where many of the gods live, and to which the dead go.

‡ The origin myth of the *kumeyoish* is very similar to that of the Zuñi *koyemshi*. "When they first came out there were no *kumeyoish*. Their sister was called *uchininako* (yellow one). She was very beautiful. The two brothers and *uchininako* were ahead of the others when they came from *shipap*. The brothers went ahead finding the way, their sister behind them. They became overheated. They found a shady place to sleep. The two brothers woke up first. 'Look at our sister,' said they. Her dress had slipped up over her leg. One brother said, 'It would make no difference what we did to her. She is our sister.' They had intercourse with her. Then all three went asleep again. When they woke up the sister was a very old woman needing a cane. The brothers were *kumeyoish*. That is the way they were punished. The people were close on behind. They saw the change. They said, 'Look, what has happened. They must have committed some great crime!' They went on. The three joined the other people."—It will be recalled that Laguna was settled in the seventeenth century by immigrants from Zuñi, Tusayan, Sía, and Acoma.

days they would come. At the end of the fourth day they came, and told their fathers and mothers they had come to show they were not lost in the waters. They lifted up their masks to show who they were. It made their fathers and mothers happy to see they were still living. From then on they were happy and wept no longer. After they had danced they started back to *wenimatse*, the *kumeyoish* ahead, leading the way. When they got back they found the opening closed very tight. The *kumeyoish* did not know which direction to take. They decided to go to *Minakuya* (Salt Lake). They went and said to her, 'We have come here, grandmother' (*papa*). She said, 'Yes, I suppose you have come for something?' 'Yes.' They wanted to get down into the lake to cleanse themselves. 'We want to cleanse ourselves, and then we want to find a father and mother who will help us open the opening to *wenimatse*.' They asked her to let them make a way under the lake back to *wenimatse*. She said, 'No, I can't give you permission for that. Have you decided to become good and do the right?' 'Yes.' But she would not believe them. But she said if they came back upon the fourth day she would have the passage ready for them.

"On the fourth day, when they came back, she had the opening ready for them near the lake. They went in and they passed along the edge of the lake. To this day men take the path made by the *kumeyoish*. When they went about half way they tried to go to the house of *Osach* (Sun). The ground was covered with sharp stones, and as they were barefoot they could not reach the opening. The water that ran down cut their feet. They went as near as they could, standing below his house. *Osach* at last came and looked at them. He said, 'What do you want, *kumeyoish*?' They said, 'We want to ask you if you knew anyone who could move away the great stone keeping in our grandfathers (*nana*)?' He said, 'I do not know who would open it for you, who could or who would have the right. But I think *diupi guyau* (badger old woman) will tell you.' He was still angry with them, so he would not tell where she lived. When they had started they had on moccasins, but so long had they been wandering, their moccasins were worn out and their feet bleeding. That is the reason the *kumeyoish* when they appear now are barefoot. They went along unhappy, their heads hanging. They did not know the way to go. They did not know they were passing close to the place of *gamoshk guyau* (spider old woman) until she called, '*Papa! papa!* come here.' They looked all about, but could see no one. She said, 'Be careful, *papa*; do not step on me. I am under this *spenuch*' (a big weed). There she was. She said, 'What are you doing, *amuu* (my dears), and what do you want?' 'We are hunting for someone who has the right to open the way for our *nana*. We went to *Osach*, but he would not tell us right. We did not know then where to go.' She said, 'I will tell you who has the right to open that place. She lives over there in that big hole. The reason *Osach* would not tell you who was the head of the *katsina* is because you had made everyone angry by your act. Now I have told you, don't tell I have told you.' They said, '*Druwisach, papa* (goodbye, grandmother).' They gave her a piece of meat they had with them. As they neared the place where *diupi guyau* lived there was a big stone over the opening. One of the *kumeyoish* said, 'I think this is the place.' They said, '*Chima* (down there), we want to come down.' They said it three times. She said, 'Come down; come on in.' They said, '*Kwasti, naia* (mother), *naishdia* (father).' They said, 'We have come to you. We have been told you are the head; you are mother and father both to the *katsina*. The opening has crusted over hard and they can't get out. We want to get our *nana* out.' 'Who told you I lived here? Who told you this was my home?' '*Gamoshk guyau*, she told us.' She was indignant that

gamoshk had told. After a while she felt sorry for them and said, 'Have you then decided to mend your ways and do the right? You have come to find out who is the mother and father of the *katsina*. Go back and tell your *nana* to be waiting and be happy, because on the fourth day I will come. I will take my little *kūṭsi* (antelope) outside with me, and we will open the opening for you.' They went back to Salt Lake and into the opening she had made for them and back to *wenimatse*. As soon as they went in the opening crusted over tight. Instead of four days it was to be four long years before *diupi guyau* came. They waited and waited, wondering why *diupi* did not come.

"At last the four years were almost past. *Diupi* wanted her husband to go with her, but he held back. Finally she said she would go and take with her her antelope. He was big now with big horns. She started. They stopped to see *Osach*. (When the *kumeyoish* had talked to *diupi guyau* they told her *Osach* was angry. She said, 'On my way I will have to see *Osach*, for he is over all of us.') He told her what paints they should use on their masks, the red and the turquoise green and how to mix them. After several days of hard travel they reached *wenimatse*. They found the opening crusted over so hard that although she pounded it she could not make any impression on it. So *Kūṭsi* said, 'I will try.' He began to butt it and great slabs of earth fell off. Finally he had it open. They stepped in. All along the wall the *katsina* were sitting sad, their heads drooping. They had been suffering there all these years. As she stepped in, she said, 'I want to know who is your head.' *Go'gagaia** spoke up and said, 'I am the head here.' *Kūṭsi* started for him, picked him up on his horns and tossed him out of the opening. He was killed and he landed somewhere near *shiti kuganishe* (the morning star). That is why that star is always red. She asked again who was the head of the *katsina*? None answered. Everyone trembled and was frightened. She told them to renew their masks. She did not say she had the paints with her. They tried to use their own but they did not stick. She said, 'I have some paints I have brought from *osach gama* (sun house).' The colourings she got from *Osach* were the best. They used them on their masks. It made them beautiful. Their own paints they discarded. To this day they use the paints from *osach gama*. That is the reason *kūṭs hanoch* has to this day charge over the *katsina*, because he opened the opening for the *katsina*. Next to *kūṭs hanoch* comes *diup hanoch*. These two lead in the dances and all disputes are referred to them. *Kūṭs hanoch* was to be always the leading one, then *diup hanoch*."

At Laguna ceremonialism or sacerdotalism is disintegrated and the social organization is considerably Americanised. Clan exogamy persists, but the clan supremacy which appears to have been a Keresan character† has yielded to a more representative form of government.‡ In Acoma, however, clan supremacy or autocracy has held its own, and it is the *kūṭs hanoch* which governs. The men of that clan choose from among their number the so-called cacique or high priest, and the *principales*, a council of ten, are also of *kūṭs hanoch*. Cacique and *principales* hold office for life. The *tenientes*, governor and lieutenants and sheriffs, as the war chiefs are

* As a masked personage he carries in one hand a flint. *Go'gagaia* had a brother, *Gowanotse* (Griever). With their long flints they had cut the ground and many people had been lost. That is the reason *Kūṭs* had horned *Go'gagaia*. *Gowanotse* sat grieving over his brother. He kept pulling out his hair until only a few strands were left. Thus as a masked personage is he represented. Formerly this myth was dramatised within the estufa.

† Stevenson, M. C.: "The Sia," p. 16, XI (1889-90), *Annual Report Bureau American Ethnology*.

‡ Parsons, E. C.: "Notes on Acoma and Laguna." MS. to be published in *American Anthropologist*.

sometimes called, are all appointed annually by the cacique, by "his brothers and uncles." To the *principales* the *tenientes* would refer any important question. The people have four ceremonial hunts a year for the cacique and they bring in his harvest. In the allotment of farm-lands he has complete say, or rather not he but his "brothers and uncles." In the words of my Acoma informant, "the cacique "himself does not go round, he knows nothing about the people; it is his brothers "and uncles who find out for him and tell him what to do"—clan autocracy indeed.

ELSIE CLEWS PARSONS.

Ethnography.

Haddon.

Note on the Gogodara (Kabiri or Girara.) By Dr. A. C. Haddon.

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I much regret that in my paper on these people (*Journ. Roy. Anthr. Inst.*, XLVI, 1916, p. 334) I omitted to refer to a paper entitled "A Description of the Girara District, Western Papua," by W. N. Beaver, in *The Geographical Journal*, XLIII, 1914, p. 407. The greater part of this communication consists in an excellent account of the physical character of the country travelled over by Mr. Beaver, with a short list of the characteristic animals inhabiting it. In order to render my account of the people as complete as possible, I now give briefly all the additional ethnographical data supplied by Mr. Beaver: He says: "I am not prepared to offer "any theories as to the racial origin of the Girara people; but it is certain that "their language is Papuan, not Melanesian nor Papuo-Melanesian. The people "themselves say that not far from Gaima [a village on the Fly river], a man "married a dog, and had as offspring three sons, the two elder of whom settled at "Domori [an island in the Fly river] and Pagona [an adjacent riverain village], "and were the ancestors of the people of those places, whereas the youngest, having "quarrelled with his elder brothers, went inland, where he saw that the country "was good, and decided to make a village. In spite of their dog ancestry, this "animal, as far as I am aware, is not the totem of any of them, their totems being "five in number: the pig (*Itira*), the pigeon (*Boboa*—I think this is the Goura "pigeon), the alligator [crocodile] (*Dupa*), the cassowary (*Goragora*), and the snake " (*Amura*). The totems were first given out to the people by a hero-ancestor called "Ibari. The totem customs do not differ materially from those of other western "tribes, and are patrilinear." The crocodile and the pig seem to figure largely in the tribal life of the people, well-carved representations of the former appearing on the canoe prows, and of the latter on the house steps.

The people are of medium sturdy stature, and seem tolerably healthy, although skin disease (*Tinea imbricata*), yaws, and a good deal of elephantiasis occur. The hair is shaved back, showing a high narrow forehead, and a small corkscrew goatee beard (*ene*) is worn. Mr. Beaver refers to the conical fibre hats decorated with feathers worn by most of the men, while others wear skull caps of network. The women cover the head, face, and bosom with a veil of net, which is stated to be a mourning dress. The other dress is scanty, and consists of a long tail of coloured grass woven on to a plaited cane belt, drawn tightly between the legs and tucked in the belt again behind. Neither sex tattoo, but cicatrices are in some instances raised.

"The chiefs have a little authority. The late chief of Barimo [the central village of the district], combining the dual functions of chief and sorcerer, was, as far as I saw, the one man in the west implicitly obeyed by his people. A chief is succeeded by his brother, not his son, and the son succeeds after the death of his uncle. Polygamy is the rule, the number of wives occasionally being 14 or 15. Divorce is uncommon."

Mr. Beaver has seen women's houses as well as the large communal house, of

which each village usually consists. The central part of the house, which is from 4.58-6.1 m. (15-20 ft.) wide or more, is allotted solely to the men, as are also the doors at each end. The only occasion on which women use these doors is during the ceremony attending the dedication of a new house. At each side of the central space are tiers of cubicles, two deep and two or three high. These are approached by ladders, and are used by the women and children, having entrances from the side. The dimensions of the Dogona house are 152.5 m. (500 ft.) by 35.68 m. (117 ft.), and 21.35 m. (70 ft.) high.

Sago and fish are roasted in sago leaves or in canes, and, with coconuts, form the staple diet. There are huge fields of sago and coconuts wherever it is possible to plant. Other vegetables used as food are taro and yams. Sweet potatoes and bananas are not largely cultivated, chiefly because the area of suitable land is not very great. They are planted in beds, and protected from the sun with shade sheds, as are sprouting coconuts; "the intelligence of these people in their methods of agriculture is, indeed, of a high order. They are head hunters, but not cannibals. Betel nut mixed with lime is chewed day and night with something almost approaching ceremonial. The lime is obtained from the coast, to which trading expeditions are made to buy shells for the purpose of burning. . . . The women are expert at fishing. They use either a net on a cane frame, something like a butterfly net, or else a large trap made of black cane, looking very like a lobster pot. These traps are from 5 to 7 ft. high [1.524-2.135 m.]. . . . The yellow cuscus and small flying phalanger are often kept as pets. . . . Very fine tobacco is grown by the natives and put up in rolls; this is traded principally with Domori and the Fly river. . . . Three varieties of stone club have been seen—the star, the disc, and the pine-apple—but stone clubs are rare in a region where one may travel for many miles without seeing a stone. A wooden club, usually of the pine-apple type, and made of very hard brown wood, is in more general use. The drums are of decidedly original type, and on certain ceremonial occasions a drum some 7 ft. [2.135 m.] is used. This is held by one man, and beaten by a second with a wooden mallet. The head of the drum is of wallaby skin."

Mr. Beaver gives four excellent photographs, one of men and women with their characteristic costume, one of the carved prow of a ceremonial canoe, one of a veiled woman standing by a large fish trap, and one of a man wearing a large mask of the type described by me; he is wearing a fringe petticoat, and holds in his hands a drum of the characteristic Tugeri (or Bugi) type (*cf. Journ. Roy. Anthr. Inst.*, XLVI, p. 351). It is unfortunate that Mr. Beaver does not inform us whether this particular drum was really used by a "Girara" native—one constantly comes across photographs in which a person is holding an implement which is not strictly appropriate. He also gives a map of the district.

A. C. HADDON.

REVIEWS.

India: Linguistics.

Hutton.

Rudimentary Grammar of the Sema Naga Language, with Vocabulary. By J. H. Hutton, I.C.S., Assistant Commissioner, Mokokchung. Shillong: Printed at the Assam Secretariat Printing Office. 1916. **133**

This book gives a convenient summary of the grammar, and a useful vocabulary of the language spoken by the Sema people, one of the central tribes of the Western Nagas in Assam. (*Cf. Map in MAN*, 1917, 74.) The language of the present work differs somewhat from that shown in the Linguistic Survey of India (Vol. III, Pt. 3, p. 222 ff.), which is said by Mr. Hutton to be apparently that of the Lozemi and the Sema in the Dayang Valley, whilst the present volume represents that spoken by the Zümomi and the Sema of the Upper Kaliki River.

The author deals with the grammar *seriatim*, with copious examples. In the introduction he discusses the difficulties of pronunciation, especially those caused by elisions, the inversion of syllables, and the prevalence of tones. The latter are not discriminated in the grammar and vocabulary as printed. There are two sets of vocabularies, one classified in subjects, the other alphabetical. Both are English-Sema.

An interesting section is devoted to the peculiar back-slang of the Sema. In this the order of words in a sentence or of syllables in a word is inverted or altered so as to make the language meaningless gibberish to anyone not familiar with the slang. This practice causes infinite diversity of speech.

The book will be exceedingly useful to all who come into contact with the Sema people, and will also be of much interest to the student of Indian linguistics.

S. H. RAY.

Russia.

Tallgren.

Collection Tovostine des Antiquités Préhistoriques de Minoussinsk, conservées chez le Dr. Karl Hedman à Vasa. A. M. Tallgren. 4to. 93 pp. 12 plates. Helsingfors. 1917.

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The author has here largely added to our obligations to him for his former work (MAN, 1917, 86). In the present publication of the *Société Finlandaise d'Archéologie* he has given a general account of the Central Siberian civilisation, specially known at Minoussinsk; he has summarised the contents of the European museums concerning each class of object, and he gives in French an outline of the results of the inaccessible Russian Memoirs and a bibliography. All this is from first-hand study, by excavating in Siberia and visiting museums. We owe much to him for thus assisting Western students of archaeology. The material is so important, both as covering a large area of the ancient world, and as lying between the Chinese and Western civilisations, that an outline of it is needed here, and anyone studying the Bronze Age must work over the original memoir.

There are first three pages on the history of the collection, and this tells so much as to present conditions of archaeology that it cannot be passed over. I. P. Tovostine, a native of Yaroslav, set up as a copper-founder near Minoussinsk; a portrait of him here would pass anywhere for an East Coast Scot. He had ancient tools continually brought by the peasants to be melted up, but he saved them and formed a collection. Various collectors during the last thirty years have been supplied with sets of hundreds of objects. Finally over 1,000 bronze, iron, and other articles were offered to Helsingfors; the price was difficult; Philadelphia began to negotiate; M. Tallgren appealed to Finnish magnates; and at last Dr. Hedman took the collection for £220 to ensure keeping it in Finland. Now, M. Tallgren, entrusted with making a scientific catalogue, has used it as a text for a general work on the early history of Central Asia. There are 31 pages on the general historic study of the archaeology, 42 pages on the various kinds of objects, a full description of plates, and a bibliography.

The earliest historic point of the steppe dwellers is the Chinese mention of Khakazes, believed to be Kirghizes, in 95 B.C., so there is no help in dealing with the Bronze Age. Some 40,000 objects of the ancient periods are now in collections, of which a summary is given. The three principal regions of early civilisation in the North are the Gulf of Finland, around Kasan, and around Minoussinsk, which is equidistant from the Euxine and China, from the Arctic and India. In the previous catalogue the Kazan antiquities were described. Here the differences between those and the present collection are tabulated. In all the main characters there is a sharp difference between the Russian and the Siberian products. It is to China, Bactria, and Persia that the work of Siberia is mostly due. For the date of the Bronze Age

there, some resemblances to the work of La Tène are noted, and the conclusion is that the Bronze Age of Siberia began about 700 B.C. (p. 20), and ended about the first century.

The megaliths are described, and the system of burials. The earliest graves contain contracted skeletons painted with ochre, flint weapons, rings of serpentine, and necklaces of animal teeth. Such are found in North Mongolia from the Yenisei to the Amur. They are entirely under the surface, without any mark. Similarly bronze-age graves near Tomsk are entirely hidden, and only found accidentally. The visible graves, called kurgans, are low mounds, a foot or two high and 20 feet or 30 feet across; upon this is a rectangular enclosure of small slabs of stone on edge, and tall stones at the corners; within the enclosure are several stone cists with large cap stones which are slightly sunk in pits. In two graves out of four described there was one skeleton upon the cap stone, and another below it in the cist. In the cists were bronze knives and buttons, pottery, and animal bones of food offerings. In the Iron Age the kurgans are larger, 5 feet to 15 feet high, covering a grave 3 feet to 6 feet deep and 15 feet or 20 feet long. In the grave is a mass of skeletons, sometimes pell mell, otherwise in two or three layers. The sides of the pits are lined with beams, and the top covered with birch bark. The whole had been burnt and then earthed over. Such begin at the close of the Bronze Age, about the first century B.C. One tomb contained a hundred skeletons in two layers, and 122 miniature weapons of bronze. These models show that such collective burials were not due to battles, but were deliberately buried with offerings made on purpose. After this came the great migrations, and then the Turki or Uigur period, of which there are multitudes of inscriptions of 600-800 A.D. The pottery of different ages has not yet been studied or classified, as the recorded graves are but few.

Of decoration, the high relief line patterns of Russia do not appear; the Siberian designs are curves, scrolls, and spirals. In the Stone Age animal carvings of stone were usual; but the bronze figures were copied from outside influences. The gryphon, so usual in Scythian and northern Greek work, is believed to have come from the Babylonian dragon. The Mykenæan winged sphinx is assigned to the same source, but this is improbable as it is at one with the Egyptian, which belongs to the art of the Nile. In the later Iron Age animal forms disappear, and plant forms are usual. This is assigned to Greek influences, like the prevalence of ivy and vine patterns in Roman work.

Regarding the people, the lack of weapons among the bronzes points to a pacific civilisation, and the uniformity of the graves, without any specially rich, shows an equality of condition, but this would not preclude there being a large slave or servile population. In the Iron Age came the Turk invasion, when bronze was used by the aborigines, and iron by the military caste. Some general remarks are made as to the confederations of Germanic tribes which overthrew the Empire, being paralleled by the Scythic and Turkic federations at the same date, which impelled the Germans forward. Nomad empires grow very rapidly owing to their habit of movement, but they decay as rapidly. Hence artistic work is quickly obtained by the employment of hired or captured workmen, but has no other connection with the people.

The region east of the Caspian, for some 600 miles, was occupied by Aryans; the same stock appears in the Massagetae, the Scythians who about 700 B.C. moved to the Don (also those occupying Palestine?), the Sarmatians in Hungary, and the Alans of the Caucasus. They may have pushed eastwards as far as Minussinsk. The original source of the Aryan was probably on the Oxus. The source of the Turk is from the Pamirs eastwards to the Amur, and they crushed the Greek civilisation in Bactria, 130 B.C.

The technique of the bronze work is considered. The mark of cloth on the back of cast bronze is referred to its being cast on a cloth in the mould. This is impossible, as the liquid metal would burn up the cloth. The meaning of the impress is that the wax model was worked on a cloth, and by the *cire perdue* process the metal necessarily took the same form. Tinning bronze was known; there is only a small amount of gold, and silver is rare. The Scythic abundance of gold was therefore not from a northern source, but probably western. In the analysis tin is almost always present, from 6 to 14 per cent.; zinc is rare, up to 14 per cent.; lead is never more than accidental, 1-3 per cent. For a mirror, 22 per cent. of tin was used, to get a hard white alloy-like bell metal.

The details of each kind of tool are described in the second part. The socketed axes are usually ribbed outside. They are supposed to originate in Hungary, and when imported into Siberia they influenced the stone axe forms. The daggers are always self-handled, a type only known in Spain and Sicily in the west; the plain blade and the tang stages were over and past before the dagger reached Siberia. The handle of the finest dagger shows by the lines of the decoration that it was moulded from a carving in bone (page 41). The knife forms are very varied, all self-handled, and nearly all girdle-knives for suspension. While there are 3,000 in the Minussinsk museum, there are only half-a-dozen from Russia. The sickles are all short, hardly any over a foot long, and rather to be called curved knives, for a nomad people would not need to reap corn. There is one short-socketed double saw, very anomalous. Also a single spear-head, $4\frac{1}{2}$ inches long, of foreign source. The arrow-heads abound; the Seythian arrow is considered to have spread from the Euxine. Some fine halberds occur, and models with animal figures on the backs; they are supposed to start from Persia. The horse-bits are very common, just simple links with side rings; some with secondary holes at the sides probably had bone or wood side pieces put through them. Of mirrors there were two centres, the Mediterranean type with an edge handle, from 4,000 B.C., and the Chinese from 300 B.C., with a knob in the centre of the back; all the Siberian come from the latter. The bronze cups known as Scythic are found from Hungary to China; they are cast in one with the short conical foot, and the two handles on the brim were cast on afterward. The usual outfit, therefore, was that of a steppe hunter, bow and arrow for shooting game, and a knife to cut it up; the spear and sword were not wanted.

Buttons were varied, always deep. A skeleton cube open on all faces, or closed on one face, or a deep stud on a base plate were usual. A wide disc, with cross bar on the back, cannot have been for a button, as one form has six discs projecting around it, showing to be an ornament, not suited to a loop or hole. Spiral coil bracelets were usual. Pendants are of animal form, strongly Bactrian in style, or perhaps from the Chinese derivative of the Bactrian work. Buckles have usually fixed tongues, which is the earlier type, Greek, Scythic, and Swiss Celtic. This is the B.C. form, while the A.D. form is the hinged tongue. Stirrups are of late origin; they began in Central Asia, and were common in China by 477 A.D., but they did not reach Europe till 600 A.D. There is no instance of a Roman, on sculpture or coin, using a stirrup. It will be seen from this slight summary what an important extent of material is treated in this valuable memoir. W. M. FLINDERS PETRIE.

Canada: Geological Survey.

Summary Report of the Geological Survey, Department of Mines, for the Calendar Year 1916. Ottawa: 1917. (Anthropological Division, pp. 387-398.)

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British anthropologists will note with admiration, not unmixed with envy, the 1916 Report of the Anthropological Division of the Canadian Geological Survey.

Although its home, the Victoria Memorial Museum at Ottawa, was occupied by the Dominion Legislature, and its expenditure was restricted by the economy enforced by war conditions, the Anthropological Division has done a large amount of exceedingly useful work. The collections made during the year included a large number of Eskimo and North American artifacts, phonograph records, photographs, and MSS. of folklore and ritual. Field work was done with deputations of chiefs from Nass River; in Nootka, French Canadian, Ojibwa, and Tahltan folklore, and in the ethnology of the Canadian Arctic. Research work dealt with time perspective in aboriginal culture (Sapir), Tshimshian and Iroquois clans (Barbeau), Iroquois foods (Waugh), and the Sociology and Religion of the Ojibwa of South-eastern Ontario (Radin). The sections of Archaeology and Physical Anthropology show similar systematic work.

The Anthropological Division of the Geological Survey deserves the warmest congratulations of anthropologists on their 1916 record. SIDNEY H. RAY.

Anthropology.

Migeod

Earliest Man. By F. W. H. Migeod, F.R.A.I., etc. Kegan Paul, Trench, **136**
Trübner. 1916. 3s. 6d. net.

In *Earliest Man* Mr. F. W. H. Migeod makes a somewhat unusual contribution to our knowledge of Man. He gives us what he considers was the history of Man from that early date on which he broke away from the Simian group, up to the time of the earliest authenticated records, up to, in other words, the Palæolithic period. He deals, therefore, with a stage of our development about which few, if any, facts exist, but about which there is in consequence ample scope for speculation. Speculation, to be permissible, must be informed, and this we can safely promise readers of the book will be found to be in this particular instance the case. The author, in arriving at his conclusions avails himself of what is apparently an extensive fund of information derived from his own personal experiences with primitive man, apes, and other members of the tropical fauna.

The chief factors which promoted Man's development are, in the opinion of Mr. Migeod, the relatively long period during which pregnancy lasts in the human species, the slow rate of propagation, the helplessness of the child at birth, and its dependence on its parents until at any rate the age of puberty. Although it is more than probable that in these respects Man is not exactly what "proto-Man" was, we may, we think, safely allow that these factors were sufficiently pronounced to determine certain developments. They entailed, for example, as Mr. Migeod points out, protection and the creation of a home. With the inception of family life, foresight in the way of food storage would become necessary, and such primitive arts as pottery making, basket making, and fire making may very well have arisen in some such way as Mr. Migeod infers from the contemplation of occasional occurrences in Nature. Dress originated, the author believes, in the desire for adornment rather than in the desire for protection. The chapter on the "Origin of Speech" is of particular interest. Mr. Migeod assumes that "cries to his mate" would be the first form of voluntary utterance by a sentient being, and cries of "pain or distress the first involuntary ones." He thinks, again, that "the means of expressing the relative position of place would take precedence of time." We find, however, some difficulty in accepting the view that "100,000 years may have elapsed between the acquisition of the means of expressing the fact that a stone had been chipped and that it was going to be chipped." We are somewhat curious, again, to know how Mr. Migeod came to know that *Homo primigenius* had legs which were banded and eyes which were black, small, and piercing. These

small excesses in the way of perhaps too-confident speculation may, however, be pardoned to one who has given us so interesting a book on so fascinating a subject.

WM. WRIGHT.

Glastonbury: Archæology.

Bulleid: Gray.

The Glastonbury Lake Village: A Full Description of the Excavations and the Relics Discovered, 1892-1907. By Arthur Bulleid, L.R.C.P., F.S.A., 137 and Harold St. George Gray, with an introductory chapter by Robert Munro, M.A., M.D., LL.D., with chapters on "The Human and Animal Remains," by W. Boyd Dawkins, M.A., D.Sc., F.R.S., and J. Wilfrid Jackson, F.G.S.; "The Bird Bones," by C. Andrews, D.Sc., F.R.S.; and "Plants," by the late Clement Reid, F.R.S. Two vols. Pp. xl. + 724. Published by the Glastonbury Antiquarian Society. 1911, 1917.

It is doubtful whether any excavations hitherto carried out in this country have equalled in importance those undertaken at Glastonbury in 1892 by Mr. Arthur Bulleid, and carried out systematically by him, with the aid of Mr. St. George Gray during the later years, until 1907, for they have opened out a fresh chapter in the early history of our country, and revealed to us with surprising completeness a civilisation hitherto known only by chance finds. The two sumptuous volumes under review not only contain a full narrative of the work, showing how carefully it was conducted, and that no fragment of evidence calculated to throw light on the life of the time was neglected, but it is also an admirable summary of our present knowledge of the Early Iron Age in Britain.

By far the most interesting portions are those contributed by Mr. Bulleid himself. His general description of the environment of the village, accompanied by maps on various scales, is a model of how such a subject should be treated, while his detailed description of the village itself is no less interesting. He has also contributed chapters on the wooden objects, the pottery, the mill stones, and other items of lesser importance.

The other articles of human workmanship are treated by Mr. St. George Gray with his usual care, and in these chapters will be found lists, often exhaustive, of all articles of similar date and type found in these islands, thus forming the basis of a much-desired *corpus*.

But the excavators realised that the complete picture of this culture could not be obtained alone from the works of the men themselves, and the late Mr. Clement Reid has contributed a chapter on the vegetable remains, with special reference to the cultivated plants, which gives us useful information as to the progress of agriculture at that date, while Professor Boyd Dawkins and Mr. Wilfrid Jackson, in their chapter on the wild and domestic animals, complete this picture.

The human remains found were not numerous, and mostly in an imperfect state, while, in spite of many efforts, the excavators failed to find the cemetery. Professor Boyd Dawkins has reported on these fragments, and from the burnt remains of one body, found outside the enclosure, has suggested that cremation was the custom in vogue for the disposal of the dead. As, however, it seems clear from other evidence that he cites that cremation was the custom in the east and inhumation in the west during this period, and as, moreover, a number of skeletons of children were found, evidently buried in the floors of the houses or just outside, one is tempted to question this conclusion, resting, as it does, upon the burnt remains of one body only, and those not enclosed in an urn, and which might well be the remains of some victim of a conflagration, or of some superstitious practice, or perhaps of some form of capital punishment.

Dr. Munro contributes an introduction giving an account of the work, and

describing fully the evidence that led Mr. Bulleid to his discovery, as well as the general conclusions to be derived from the excavations. Both he and Professor Boyd Dawkins have much to say on the early ethnology of Britain and Europe generally, some of which will not readily be accepted without modification by many other authorities. It seems a pity that the custom of using tribal names for races should still be continued, especially when such names have only an exact sense in relation to linguistics. As the identifications of race with language, even if they can ever have existed at all, are still a matter of considerable dispute, such terms as Celtic or Teutonic race, more particularly Goidelic race, only lead to confusion of thought; the same may be said of the Basque race, as the modern Basques are of two types, and it is uncertain to which, if to either, the language originally belonged. The term Iberic is less open to objection, and has the advantage of long use, invariably in the same sense, but of late years the term Mediterranean has, advisedly, been substituted for it by most writers, and there are advantages in adhering to a uniform practice.

Again, it has been shown more than once that the so-called Bronze Age men, though they had broad heads, were racially distinct from the Alpines of Central Europe. As bronze objects are by no means always found with them, and there is no reason for believing that all the inhabitants of Britain throughout the Bronze Age were of this type, the name Bronze Age men is perhaps a misnomer, while, as it has been shown that they introduced Beakers into this country, the term Beaker-men or Beaker-makers seems to be more appropriate and more exact.

The most striking thing about this report is that it shows what admirable work may be done by a young amateur who is keen and has a thorough knowledge and love of his own region, for such was Mr. Bulleid when he first made his startling discovery, as the result of careful, reasoned deductions, and began his excavations, a quarter of a century ago. This record should be a great encouragement to the young investigator of the present day, and spur him on to do likewise.

H. J. E. P.

ANTHROPOLOGICAL NOTE.

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(Donor indicated in parentheses.)

The Glastonbury Lake Village: A Full Description of the Excavations and the Relics Discovered, 1892-1907. With chapters on the "Human and Animal Remains" (W. Boyd Dawkins and Wilfrid Jackson), "The Bird Bones" (C. W. Andrews), and "Plants" (Clement Reid). $12\frac{1}{2} \times 10$. Vol. 2, pp. 353-724. 43 Plates and many Illustrations in the Text. Glastonbury Antiquarian Society. 1917. Vols. 1 and 2, 63s. net. (Purchased.)

Catalogue of Prehistoric Antiquities in the Indian Museum. By J. Coggin Brown, M.Sc., F.G.S. $10 \times 6\frac{3}{4}$. 155 pp. 10 plates. Government Central Press, Simla. 2s. 4d. (The Superintendent, Government Printing.)

Primer of Kanuri Grammar (translated and revised from the German of A. von Duesburg). By P. A. Benton. $7 \times 4\frac{3}{4}$. 130 pp. Oxford University Press. 6s. (The Crown Agents for the Colonies.)

A Handbook of the Mende Language. By the Rev. A. T. Sumner, B.A. $8\frac{1}{2} \times 5\frac{1}{2}$. 191 pp. Government Printing Office, Freetown. 6s. (Director of Education, Freetown.)

MAN

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ERRATA.

- No. 14, page 23, line 6, *for Anka read Awka.*
 No. 23, page 39, line 46, *for Bankside read Bankfield.*
 No. 33, page 57, line 4, *for Kyōlo read Kyōtō.*
 No. 33, page 58, footnote †, *for nationalize read rationalize.*
 No. 33, page 59, footnote ‖, *for belief read beliefs.*
 No. 40, page 71, line 25, *for Dr. Hane read Dr. Hume.*
 No. 40, page 71, line 43, *for Semitis read Semites.*
 No. 54, page 92, footnote *, *for piona read pious.*
 No. 54, page 93, line 31, *for throughout read through.*
 No. 70, page 124, line 9, *for 3 Zac read 18 Zac.*
 No. 74, page 136, lines 35, 36, 37, *for "If then they dropped the 113 days rectified" read "The error at 9-12-11-4-2-9-9 I K (17 Mol) would be practically the same. If, then, they dropped the 113 days and commenced a new Mars series starting from 13 Muluc instead of 9 Ik their Mars calendar reckoning from 4 Ahau 8 Cumhu would be rectified."*

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1111



TWO BRONZES OF ASSYRIAN TYPE.
(FULL SIZE.)

MAN

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N.B.—MAN, 1918, consists of twelve monthly-published sheets, of at least sixteen pages each, printed in single column; containing "Original Articles" and substantial "Reviews" of recent publications; all numbered consecutively 1, 2, 3, onwards.

N.B.—Articles published in MAN should be quoted by the year and the reference-number of the article, not by the page-reference; e.g., the article which begins on page 6 should be quoted as MAN, 1918, 3.

ORIGINAL ARTICLES.

Archæology.	With Plate A.	Read.
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Two Bronzes of Assyrian Type. By Sir C. Hercules Read.

Some months ago I described in MAN (1917, 1), two bronzes of animals of a type that occurs but rarely in this country. By an odd chance two others have come into my hands having certain features in common with the first, but in other ways even more enigmatical. They are shown in the accompanying plate; their recent history is brief, but in one respect interesting. They were ceded to me by Lady Hunter, who told me that her husband had obtained them from a Parsi, in Bombay, I think; further, that the story in the family was that they had possessed the bronzes from time immemorial, they having been brought by their ancestor from Persia, where they had been attached to the gate of the city whence the Parsi family had come.

They interested me both by their intrinsic merit and also from their artistic and technical affinity with the Scythian bronzes to which I have referred.

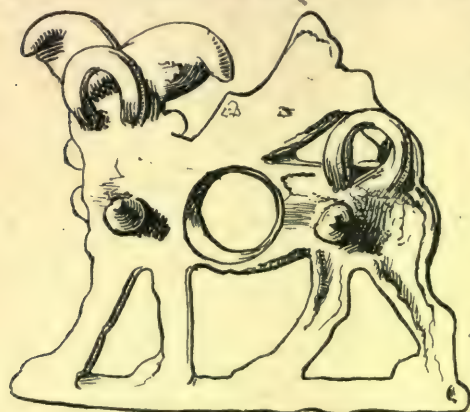
To deal first with their technical peculiarities. It will be seen that they are cast *à jour*, with nothing to represent background, the only feature extraneous to the animal being the bar under the feet that forms a base to the whole. The reverse side is either flat or slightly hollowed to economise the metal. In these respects they resemble the Scythian animals, but the Persian beasts are in addition provided, on the reverse, each with two loops and two conical projections, all cast at the same time as the rest. This can be best seen in the figure on page 2; the loops are all inclined upwards, the projections standing at practically a right angle to the plane of the casting.

The work has been executed by very competent hands, and it is not impossible that the process by which the casts were produced is that known as *cire perdue*, in which a wax model is first made, then coated with clay, and the wax being melted

out, the resulting cavity is then filled with the molten metal. By this method all the remarkable castings from Benin were produced. The surface is at present coated with a black patina, such as would result from long use or exposure above ground, and differing widely from the oxidation that results from long burial. So far, therefore, the condition of the bronzes is in accord with the Parsi story.

The animals represented at once recall the characteristic bull-like monsters of Assyria, but at the same time there are differences that may be of some significance. The Assyrian bulls are human-headed, and these also have human heads, but although the modelling of the bodies suggests a bull, the horns are unquestionably those of a sheep, and, moreover, appeared to me likely to be characteristic of a particular species. I therefore sent a photograph of the two bronzes to Lord Rothschild, asking for information on this point. His kind reply is interesting; he says: "The horns of the figure are those of the wild sheep of Asia Minor and Armenia, "*ovis orientalis gmelini*, and so your surmise as to the Armenian origin is confirmed. "Of course, typical *ovis orientalis* has also very similar horns, but this is confined "to Cyprus."

Thus we have the search for a country of origin brought down to comparatively narrow limits. In writing to Lord Rothschild, I had told him that on examination of the bronzes from the point of view of type, I had come to the conclusion that they



were more nearly related to the antiquities of Armenia than of any other country—an opinion in which my colleague, Dr. Budge, agrees. It is for this reason that I describe the opinion of Lord Rothschild as interesting, for it agrees, from an entirely different class of evidence, with the conclusion on archaeological grounds.

Thus we are dealing with relics of an ancient civilisation of Armenia, and with a type derived from Assyria, and, assuming these two facts, there is nothing inherently improbable in the Parsi story of the bronzes coming from Persia; it is, on the contrary, more likely than not. The relations between ancient Assyria and Persia, on the one hand, and Armenia are known historically to have been pretty constant. Though this testimony as to their country is fairly conclusive, I fear I cannot provide anything precise as to date. I should hesitate to place them so far back as the golden age of Assyria, and in the other direction I feel sure that they are by no means of modern times—or even so recent as mediæval. Analogy of technique and type, in which I would recall the Siberian bronzes above mentioned, would incline me to place the date somewhere B.C., perhaps a century or two.

Although the broad features of the design have an Assyrian look, it is remarkable how much the two differ on close comparison. The wings on our animals, for instance, proceed from the shoulder, whereas those of the Assyrian winged monsters nearly always cover the chest, or appear to do so in the side view. On the embroidery of a king's robes from Nineveh, however, certain sphinxes and winged bulls have wings much like those of our animals, and a painted brick from Nimrud shows a ram with horns not unlike.*

A further small point is that in Assyria the tails of monsters in this attitude always seem to hang down, and are not curled over the back, as here—and the

* Layard, *Monuments of Nineveh*, Ser. I., Pl. 8, 44, 87.

small single curls of hair on the neck are not found in this form. The modelling of the human faces, again, differ widely from anything found in Assyrian work of good period; they are of a very rudimentary school of modelling, the eyes being mere dabs in relief.

So far for country, period, and artistic analogies. The next point is one where I confess I am frankly at a loss—and that is, for what purpose were these enigmatical objects made? The main factors are that we have the two loops for attachment or suspension, aided by pegs which would appear to serve the purpose of keeping the bronzes vertical if suspended by the rings on a wall or door. Then through the chest of each animal is a circular hole with flanged circumference. A careful examination of these holes makes it clear that something, rope or thong, habitually passed through them, and that the thong passed in a different direction in the two bronzes. In the case of the animal on the right in the plate, the wearing of the orifice shows that it passed diagonally across the animal, and the outline figure (*cf.* the back of the same bronze) again shows the corresponding bevelling; in the other bronze the wear of the inner side of the flange is equal around the circumference.

What these points indicate is hard to say. The nature and position of the two loops seem to be adapted only for suspension, and not for attachment by rivets, and if this be so the projecting pegs have a real function, but such an explanation enhances the difficulty of finding a function for the circular openings. I must leave this problem to someone more ingenious or experienced.

I should add that the ultimate destination of these bronzes is the British Museum.

C. HERCULES READ.

Egypt: Archæology.

Moir.

Some Flint Implements of Rostro-Carinate Form from Egypt. *By*

2

J. Reid Moir.

The three flint implements to which this note refers form part of the Seton-Karr collection in the Ipswich Museum, and it is owing to the courtesy of the curator of that institution that I have been enabled to figure and describe them. It is now well known that the rostro-carinate flint implements were first found in the detritus-bed below the Pliocene red crag of Suffolk, and in the Middle glacial gravel and other pre-Palæolithic deposits of that county. An account has also been published of the occurrence of implements of this type in beds of gravel situated in other parts of England (*Journ. Roy. Anthr. Inst.*, Vol. XLVI, 1916, January to June, pp. 197-220). But at present we have no record of rostro-carinates being found outside this country, and I consider, therefore, that the existence of these three Egyptian specimens should be placed on record.

It will be seen from an examination of Figs. 1, 2, and 3 that the anterior region (ant. in drawings) of each specimen has been flaked into a most definite beak-like form. The ventral plane in each case is very clearly marked, and the carina exhibits the usual curvature, as seen in the numerous rostro-carinate implements hitherto discovered. The sectional drawing of the anterior region of the specimens shows also the markedly triangular form which all true rostro-carinates exhibit.

It is noticeable, too, that the flaking which has given to the implements this beak-like profile has been caused by blows removing large flakes of flint, and that, in consequence, the flake-areas have been greatly truncated in the process of making the implement. Thus, except for the fact that these specimens are made from the peculiar putty-coloured and somewhat cherty Egyptian flint, their form, so far as the anterior region is concerned, is very similar to the rostro-carinate implements of pre-Palæolithic age found in Suffolk and elsewhere in England.

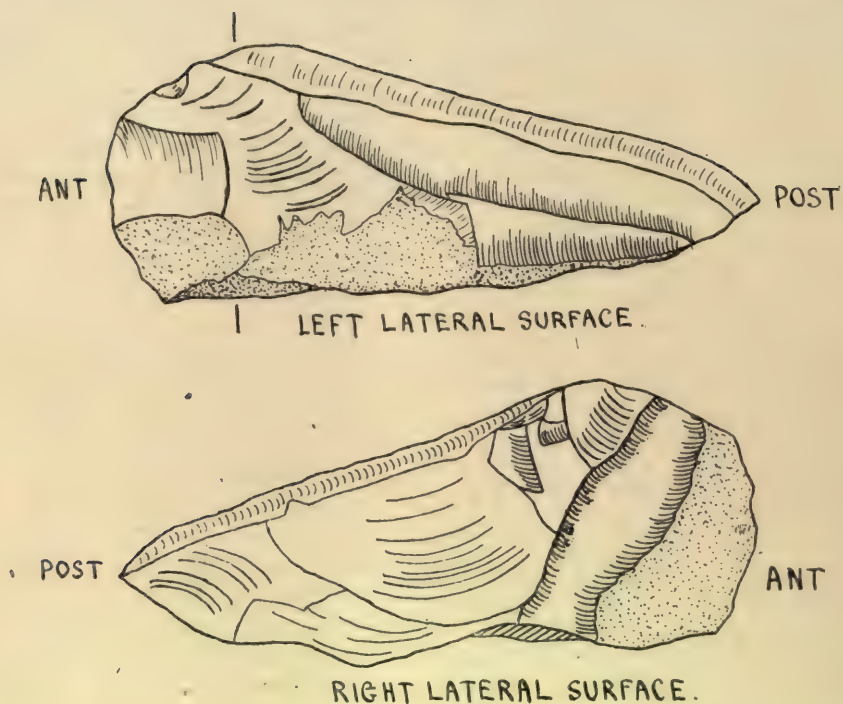


FIG. 1.

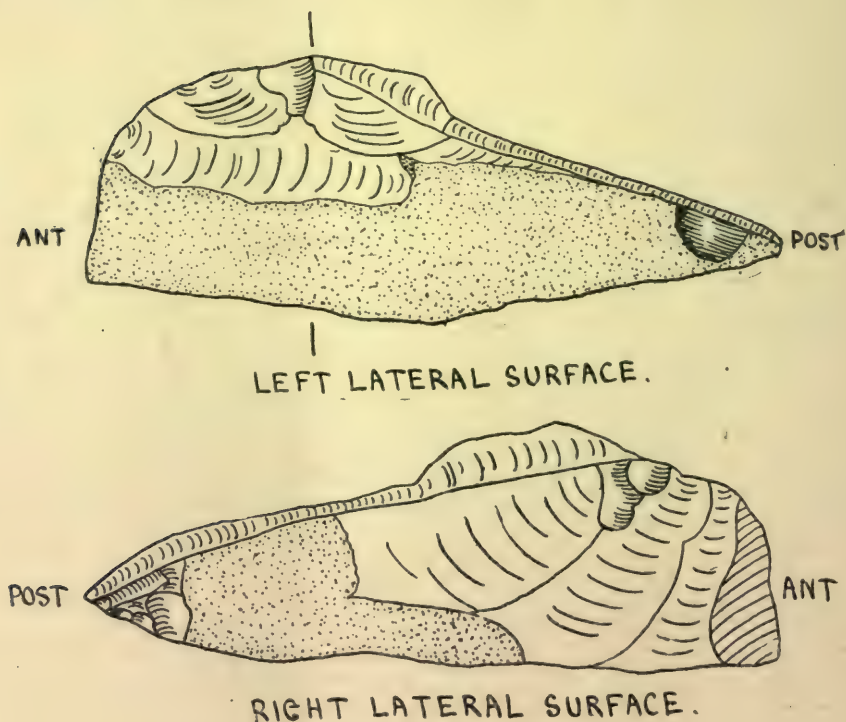


FIG. 2.

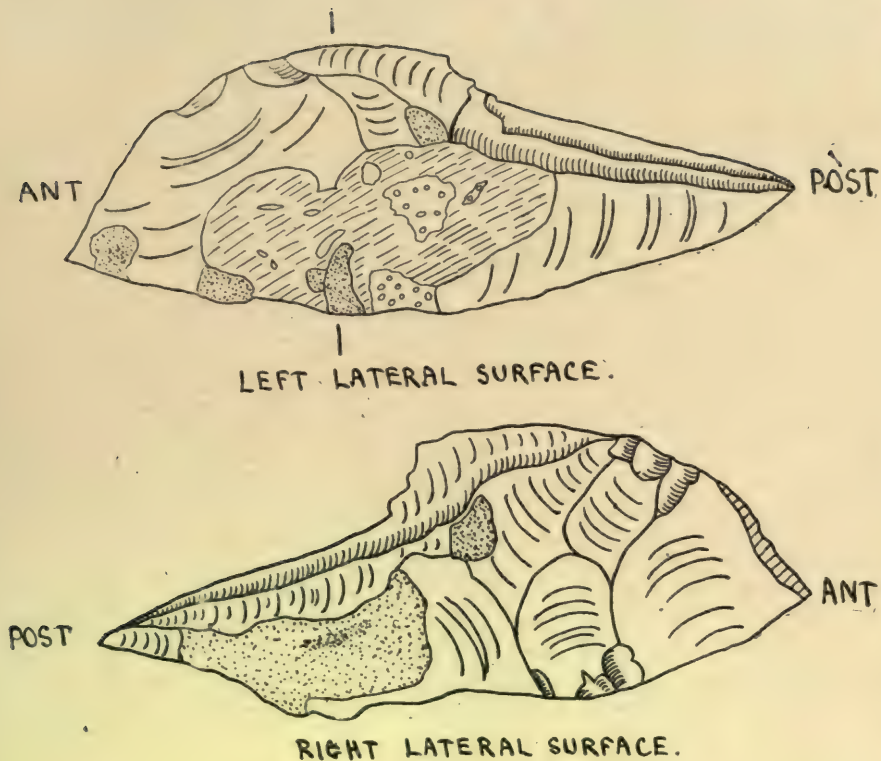
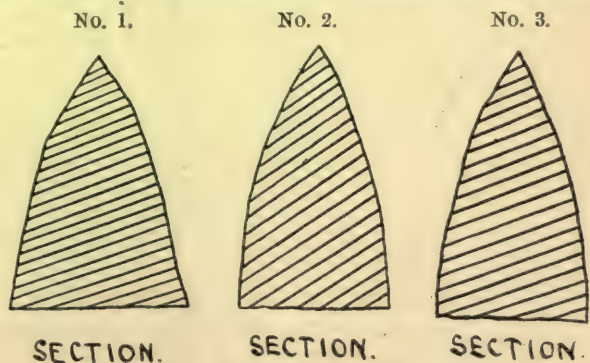


FIG. 3.

But when an examination of the posterior region (post. in drawings) of the specimens is made, a totally new characteristic is observable. In nearly all the rostro-carinate implements hitherto discovered the posterior region is wide and massive, but in these Egyptian specimens the reverse is the case. The posterior region has, in fact, been greatly reduced in size by the removal of long parallel flakes.

The blows which removed these flakes were delivered on the extreme posterior edge of the ventral plane, and the technique employed in their removal was of quite a different order to that adopted in the formation of the anterior portion of the implements. It would appear that, if needed, the posterior region of the specimens might have been used as a push-plane, the ventral area providing the necessary flat surface for such manipulation. But if this were the only use to which the implements had been put, there would have been no need for the production of the anterior region, with its sharp-edged carina, and moreover this carina would make prehension difficult and uncomfortable.



SECTIONAL DRAWINGS OF IMPLEMENTS.

It seems, therefore, that the carina fulfilled some special purpose, and I have

already given it as my opinion that in all probability it was utilised as a chopping or cutting edge (*Journ. Roy. Anthr. Inst.*, Vol. XLVI, 1916, January to June, pp. 197-220). These Egyptian implements may in consequence represent specimens adapted for two distinct purposes. But it is of great interest to notice the skill with which the anterior region has been fashioned by means of blows removing large flakes of the true pre-Palæolithic order, while the posterior region has been modified by the removal of long, narrow flakes, such as would be most readily associated with the workmanship of the closing phases of Upper Palæolithic times.

So far as my experience goes, it is not often that one sees flaking of such divergent kinds, and of the same age, on one and the same implement, and I regard such an association as being not without significance.

Unfortunately, I am not able to say to what prehistoric period these Egyptian flints belong. One specimen bears a label of which the legend reads: "Egypt, E. Desert," but that does not help us to a decision. The specimens, so far as I am able to judge, have not lain long, if at all, upon the present surface of the ground, as they are not in any way glazed, nor do they exhibit the well-known mahogany "patination" of so many surface flints from Egypt. From their quite unabraded appearance, and the almost complete absence of any signs of use, I should be inclined to think that they were dug up from some old "floor" or occupation-level, and where an actual flint working-site or "station" existed.

As there are no doubt a very large number of Egyptian flint implements in various collections in this country, it may be that similar forms to those here described may now be recognised, and I should be very glad if any information dealing with the provenance and age of such specimens could be furnished if it is found that other implements of this type from Egypt or elsewhere are in existence.

J. REID MOIR.

Arabia Petræa.

Johnson.

Some Bedouin Customs. By F. Johnson, M.B.

3

Division of Spoil.—Some ten years ago it was my good fortune to spend a day and a night with a pure Bedouin tribe inhabiting the desert that stretches eastward from the border of the ancient land of Edom. The tribe is known as the 'Atowni or the Beni 'Atiyeh. The wanderings of the tribe range between Tabūk in the Northern Hejaz and Kerak, a town in the mountains east of the Dead Sea.

On arriving at the encampment I found a loud altercation was proceeding relative to some camels that had been seized from an enemy tribe; a dividing of the spoil must needs be effected. The arrival of my Arab companions and myself caused no interruption of the proceedings beyond the momentary action of preparing us seats in the guest's half of the sheikh's tent and leading off our horses for tethering. The arrival of a *frangi* guest, uncommon as such an event was in the experience of this tribe, failed to have a distracting effect upon the proceedings. For the time being at least the guests were *Awādim* (the plural form of *Adami*), sons of Adam, distinct, it is true, from the lower animal creation, but not calling for distinction within the genus. After many years' contact with the tent-dwelling Arabs, I have noticed this mental trait in them, though relatively unnoticeable in the town and village-dwelling Arabs, as might be expected. The trait, in my opinion, does not proceed from a disconcerting spirit; on the contrary, amongst tent-dwellers one has seen some fine proofs of good breeding. The classifications or distinctions formed by the mind of the nomad must, as the result of his surroundings and manner of life, be of a most elementary order. God, Man, and Nature, animate and inanimate, are of course chiefly distinguished. Sub-divisions tend to be viewed as more or less superfluous. This, however, is an excursion from the subject in hand.

The altercation must have lasted about an hour after our arrival, the disputants meanwhile sitting about irregularly outside the open tent, when suddenly a very impressive and significant act took place. The disputants rose from the ground and advanced towards the sheikh, who remained sitting. As they approached him they took off all the weapons they carried on their persons—swords, pistols, and knives—and laid them down at his feet. The disputants then resumed their seats. The sheikh, who, whilst the dispute lasted, did not appear to be giving special heed to the words of the disputants, and certainly did not interrupt their loud talking with questions, then proceeded to adjudicate. Without moving from his sitting posture and after a short pause, during which silence was established, he began with what seemed to be a sort of invocation in which he called God, the Prophet, and the Fathers of the tribe to bear witness. Then in a comparatively few words he apporioned the camels to their new owners; the actual number of camels in question was, I believe, quite small. His judgment was apparently accepted as final. The dispute rested, anyhow, for the twenty-four hours that followed, till we bade farewell to our hospitable friends. Judgment being given, the men girded on their arms again and dispersed to the tents forming the encampment.

It can hardly be doubted that I witnessed on this interesting occasion a ceremonial that had its origin in the remote past, certainly in the pre-Mohammedan era. The invocation of the Fathers of the tribe—as far as my memory serves, three or perhaps four names were mentioned—following the names of God and the Prophet, is noteworthy. The act of depositing the arms at the feet of the sheikh could only be expressive of the willingness of the disputants to accept his arbitration, and a sort of public witness that neither party thereafter would have recourse to violence whichever way his decision might go.

Pain in the Back.—In the course of a journey in the Arabah, that strange tract of country extending between the southern end of the Dead Sea and the Gulf of Akabah, I came to a strange formation of rock. It took the form of a low archway. My Arab companions and I were accompanied by a local Arab guide. On reaching the rock which abutted on our pathway the guide halted, and, after the Moslem fashion, he removed his shoes and cloak and recited a prayer. This finished, he stooped in order to pass under the archway and then rejoined us. I questioned him concerning the archway, and was informed that the recitation of a prayer followed by the passage through the archway would bring relief to those suffering from pain in the back.

The Sanctity of a Saint's Tomb.—The point here illustrated is the availing power of a saint's tomb as a means of protection to property. If I mistake not, the example about to be related is common enough in the Near East.

I have seen two or three ploughs of the usual simple Eastern pattern piled up on the tomb of a holy man—in this instance a rough stone, much out of repair, without a surrounding enclosure or domed *qubba*. They are deposited thus for safety and for the convenience of the owners, who may be engaged at work at some distance from their homes, and wish to avoid carrying the plough backwards and forwards. Such articles are perfectly safe when so placed. To interfere with them would be to incur the displeasure of the spirit of the departed saint, and would draw heavy visitation upon the "house," i.e., the family of the thief.

Sacrifice at Hot Springs.—On the east of the Dead Sea, about 800 feet above the level, are found at least three hot springs held in great repute for their medicinal qualities by the inhabitants of those parts. The best known is the spring in the neighbourhood of Machaerus, the place of imprisonment of St. John the Baptist, now a deserted ruin.

In resorting to the spring, the natives invariably take a sheep or goat for sacrifice. The benefits of the bath are believed to proceed through the medium of a sheikh or holy man whose spirit presides over the spring. To secure his favour the sacrifice is offered. I have been told that sometimes the victim is slaughtered in such a way that its blood mingles with the steam rising from the spring, and that the patient reckons on the maximum benefit if he can expose his body to the combined fumes of the fresh blood and the boiling water. F. JOHNSON.

Borneo: Folklore.

Evans.

The Raja and the Pauper: A Borneo Folk-Tale. *Told by Si Ungin a Bajau, of the Tempassuk District, British North Borneo. Translated and taken down by Ivor H. N. Evans.* **4**

There was once a very handsome man who had married a beautiful wife.

The husband said one day to his wife: "If I were to die, would you marry again?" The wife did not answer him properly, but asked him in turn: "And if I were to die, would you marry again?" The man replied: "If you were to die first, I would not marry another." Then said his wife, "If that is your answer neither should I wish to marry again if you were to die first." The husband and the wife therefore agreed that, if either of them died, the remaining one should not remarry.

Some time afterwards the man became ill, and, when he had been sick for three or four days, he died. His mother and father came and wished to bury him, but his wife would not allow them to do so.

Then said his mother and father to the woman: "What do you want?" And the wife replied: "I wish to lie near him until nothing but his bones are left." So the woman slept near her husband's corpse, and she became defiled with its putrefaction. When nothing remained except the bones she went to bathe, and having done so, she again appeared beautiful. All the men in the country wished to marry her, but she would have none of them, saying, "I still have a husband."

At last the Raja of another country heard a report of her beauty. He loaded his vessel with costly gifts and prepared to set sail with his companions. Now a certain poor man, who as yet had not married, was in the Raja's train, and when the ship was laden this poor man said to the Raja: "Your Highness, your slave would like to go with you and see this woman." Then, said the Raja, "What is the use of your going there, you are only a pauper; you have no goods, and the only thing that you possess is your own body."

The poor man answered: "If your Highness will take pity on your slave, your slave would like to go and see this country." "Very well," replied the Raja, "you can come, but to-morrow I set sail."

So the poor man thanked the Raja and went home. That evening he said to his mother: "Mother, put me up some rice in a bundle." His mother asked him: "Where are you going?" and he replied, "I am going with the Raja to see this woman."

The same night he went to the graveyard and, digging open a grave, took the bones from it, and carried them home. The next morning, when the Raja was about to sail, he placed the bones in a large basket and went on board. The ship sailed away and after a time arrived at its destination.

When the Raja had disembarked, he gave it out that he wished to marry the woman. Next he sent men requesting an answer to his proposal, and the woman replied, "I do not wish to marry, for I have a husband already—these bones." Then said the Raja, "Tell the woman to throw away the bones and I myself will

"occupy their place and will give her as dowry all that my ship contains"; but the woman answered again that she already had a husband.

That evening the poor man left the ship and, taking his basket with him went to the woman's house. When he got there it was dark, and he said to the woman's father, "Will you let me sleep here to-night, for darkness has come on while I have been walking." The woman's father replied, "Very well, you can sleep here." So the woman's father gave him food and, when all the people of the house had fed, he unrolled a sleeping-mat and gave it to him.

Now when the poor man had spread out his mat, he opened his basket, took out the bones and placed them near him. The father of the woman said to him, "What are those?" The poor man replied, "They are the bones of my wife, and wherever I go, I take them with me." "Allah!" said the father, "why my daughter also keeps the bones of her husband; look for yourself."

Said the poor man: "I promised my wife, when she was alive, that, if she died first, I would not marry again, and she made a like promise to me. Now she is dead, I do not wish to marry again, and I carry my wife's bones with me." Then spoke the woman: "I made a promise just such as yours, and now I do not wish to marry a man, however handsome he may be, or however many goods he may have."

After this the people of the house went to sleep, but the poor man kept awake, and at midnight he took away the bones of the woman's husband, mixed them with those that he had brought with him, and put them near the cooking-place. Then he feigned sleep, and at about five o'clock in the morning sat up and pretended to weep. So because of his great lamentation the father of the woman, the woman herself, and all the other people of the house awoke. And the father said to him: "Why do you weep?" The poor man replied: "My wife is not here near me; where can she have gone?" Thereupon the woman began to bemoan herself because the bones of her husband were missing as well. So the people of the house searched for the two skeletons, and they found them near the cooking-place.

Then both the man and the woman lamented afresh, since the bones of the woman's husband were lying with the skeleton which the poor man said was that of his wife.

Thus there arose a lawsuit because the bones of the poor man's "wife" had been unfaithful with those of the woman's husband; and the judgment of the elders was that, as the bones had been unfaithful, the man and the woman were absolved from their promise, and, considering the facts of the case, they thought it fitting that the man and the woman should marry.

So they were married; and the Raja was very angry with the poor man, and went home to his own country; but the poor man stayed with his wife. As for the bones, the people of the house took them and buried them. I. H. EVANS.

Cornwall: Mineralogy.

Reid.

Bronze and Tin in Cornwall. *By the late Clement Reid, F.R.S.**

5

The mode of occurrence of the ores of tin and copper suggests that bronze may have been discovered independently in several countries, and without any necessary acquaintance with native copper.

The use of native copper would probably originate in districts where it occurs in large masses—not in Britain, where the pieces are rare and usually small. It would be treated as a tough stone, hammered cold, but not cast. The known European copper and bronze implements are cast, not hammered; but in the cliffs

* This paper was found ready typed for press among Mr. Reid's papers after his death. It is printed as he left it, with one change in punctuation and three small grammatical corrections.—W.R.

of Mullion, in the Lizard peninsula, narrow veins of native copper (without tin) can be seen in the rocks between tide-marks, and one mass found in the mines weighed 104 lb. In this district copper implements, belonging to the Stone Age, might be found. Native copper also occurs in the St. Just district and near Camborne in considerable masses; but apparently always more or less mixed with tin-ore.

The vivid green and blue ores, which occur near the surface, render copper the most easily recognisable of metals in the field. These ores would be the easiest, and the first, to be smelted, and anyone seeing the green stain would know it again in a new district. One of these green ores, malachite, is a beautiful stone, common in the Cornish cliffs, and likely to be collected for ornament or pigment before its use as copper-ore was known. In these cliffs streaks of vivid green mark the position of copper-lodes, and the lodes are very easy to work.

It would soon be noticed that Cornish "copper," though extremely variable, was often much harder and tougher than foreign copper, and would take a better cutting edge; the reason being that, except in the Lizard, all the Cornish copper-lodes found in the cliffs contain tin also. Tin-ore, however, is one of the most difficult ores to recognise (except when found in big crystals); it is very variable, but is usually dull or resinous-looking, and exceedingly like the worthless schorl and wolfram with which it is mixed. It undergoes no change under the influence of the weather; consequently a tin-lode shows neither characteristic stain nor peculiar taste. A little copper or iron, almost invariably present, entirely masks the tin, so that even within the last fifty years lodes have been worked for copper with no knowledge that they contained tin also, and now the waste is being gone over again to extract the tin.

Tin-ore, being un-metallic looking and useless as pigment, it would probably be long before any direct connection was traced between the dull-looking heavy "tin-stone" and the whitish metal sometimes obtained from poor copper-lodes. But when this discovery was made there would soon be a complete revolution in the methods.

Tin-lodes are such extraordinary mixtures, and the ore is so often spoilt by the presence of arsenic, tungsten, uranium, etc., even now difficult to remove, that the deliberate manufacture of bronze from the two pure metals, mixed in definite proportion, seems to imply a far later and higher stage than the chance smelting of "bronze-ores," from certain selected copper-lodes known to yield metal of special toughness.

The stages in the discovery might be somewhat as tabulated below, and these stages might be passed through independently in several countries where mixed tin and copper ores are found:—

1st Stage.—Cold-hammered metal—meteoric iron, native copper, perhaps gold—really belongs to the Stone Age, the metal being treated merely as tough shining stone, which could be beaten into shape, though not flaked. Only native metal used, and no metallurgical process or heat employed.

2nd Stage.—Use of fire to anneal or to soften metal for hammering. A great advance; but not clear how this would be reached, unless the hardening of wooden spears by fire led to it.

3rd Stage.—Discovery that copper was fusible and could be cast. Discovery that malachite, always associated with native copper, produced copper also. This stage was probably connected with the invention of pottery, as some sort of crucible or furnace would be needed.

4th Stage.—Discovery that certain copper-lodes in the Cornish cliffs yielded copper (bronze) of an exceptionally tough quality, and that this bronze was a valuable article of exchange, like as good chalk-flint had been.

5th Stage.—Cornish copper proving to be extremely variable, it was found that certain lodes in the cliff yielded red copper (Lizard), others yielded tough copper or bronze (St. Just, St. Ives, Mount's Bay), and still others white copper or tin (Cligga Head and St. Agnes). The red copper was too soft, and tools became blunt; the white copper was brittle and the tools chipped or broke. All damaged tools were re-melted, with the surprising result that the mixed metal was better than either.* This would lead naturally to the deliberate mixing of the two metals.

6th Stage.—It was discovered that the bronze was whitest where there was little copper-stain, and this peculiarity would soon be associated with the large brilliant faceted crystals of tin-stone occurring at Cligga Head, St. Just, and St. Michael's Mount.

The mines up to this stage were entirely in the lodes seen in the cliff. The export trade was carried on by coasting vessels, for the deep, densely-wooded, and marshy valleys made land-carriage very difficult anywhere near the coast.

7th Stage.—Gold-washers on the open moors discovered that with the gold occurred grains of heavy tin-ore, like that of the lodes but of better quality, more easy to obtain, and always yielding tin without admixture of copper. For export to countries yielding copper, tin alone was required. The reduction of weight would amount to 90 per cent.—an important consideration, as it would favour the introduction of land-carriage instead of a very dangerous coasting voyage round the Lizard. The inland position of the first shallow stream-tin works on the open granite-moors near the watershed would also render land-carriage more easy and the sea less convenient of access. Copper-lodes were abandoned and alluvial washing alone undertaken, as long as the stream-tin was obtainable in quantity close to the surface. This was the stage reached in Caesar's day, when tin was exported but copper was imported. Copper pyrites, which forms the inner parts of the lodes, was probably a useless ore to the natives, who could only work oxides and carbonates.

8th Stage.—Alluvial deposits exhausted, and lodes again worked. But the copper and tin are treated separately. This change commenced about three centuries ago, and was completed a few years since, when the last alluvial works were abandoned.

CLEMENT REID.

REVIEWS.

Researches into the Transmission of Culture.

Journal of the Manchester Egyptian and Oriental Society, 1915-16. Manchester: University Press. 1916. 5s. net.

A very interesting volume. It contains three important articles. M. Alphonse Mingana writes on the "Transmission of the Koran," in which he comes to the conclusion, after examination of the traditions recorded by Mohammedan writers, that very few oracular sentences, if any, were written during the Prophet's life, but that the book, as we now have it, was a subsequent compilation by various writers. Very little of it, therefore, is authentic. Professor E. H. Parker discusses the "Origin

* The proportion of tin to copper raised in Cornwall between 1771 and 1838, when both metals were being mined on a large scale, was about 1 : 2. The tin, however, includes the alluvial workings, which are not separated in the statistics. Probably the proportion from the lodes alone between those dates was about 1 : 3. The earlier workings, however, were in the enriched upper part of the lodes, where the copper is concentrated, though the amount of the insoluble tin remains about the same. It is possible, therefore, that the proportion of tin to copper found in the early bronzes was merely the result of chance mixture and constant re-melting of damaged weapons, till they approached the average metallic contents of the ore found in the easily accessible part of the lode near the surface.

of Chinese Writing," discrediting altogether "the attempts to prove that the Chinese "derived their primitive pictographs from the Akkadians or Sumerians of Babylonia," and being of opinion on the evidence that the peoples now assimilated more or less finally by the superior tribe of the Yellow River, who founded the Chinese Empire, have probably been where they now are for countless ages, "and have "worked out their own elementary script, no other nation within a thousand-mile "radius of them having given them any evidence of rival records at all up to, "say, 150 B.C."

This seems in diametrical opposition to the opinion of his colleague, Professor Elliot Smith, whose argument, in his able article which follows, on "Ships as Evidence of the Migration of Early Culture," logically leads to a denial of the possibility of anything being invented more than once, and who traces all culture to Egypt, or to a comparatively limited district of which Egypt and Mesopotamia represent the two limits. Similarity of form and use in weapons, implements, and other characteristic objects is doubtless to be found in many quarters of the globe. But does mere similarity prove transmission? Even when accompanied by apparently irrelevant details, is it conclusive? What is necessary is historical proof. Professor Elliot Smith is anxious to shift the *onus probandi*. It cannot, however, be escaped; for it lies not on those who challenge, but on those who assert an affirmative proposition. His theory is fascinating: the evidence on which it rests is, as yet, far from complete.

In the Report which precedes these papers, an account is given of a lecture by Professor G. Unwin on "Eastern Factors in the Growth of Modern Cities." The lecture was devoted to working out the evidence of the cult of St. Nicholas of Myra in East and West. Research on church-dedications often leads to discoveries valuable not merely to the antiquary, but also to the student of wider problems of Anthropology. But a caution is perhaps necessary against assuming St. Nicholas to be always the patron of seamen and the successor of Poseidon. E. S. H.

American Indians.

Miner.

The American Indians North of Mexico. By W. H. Miner. Cambridge University Press. 7

This little book contains six chapters (150 pages), a few pages of notes, bibliography, and index, one illustration, and one map. Apart from general matter, only the Plains Indians and those of the South-West come in for special treatment. The author has shown boldness in attempting to treat a very large subject in such very small compass, and to some it will seem that his omissions are more conspicuous than his inclusions. The book is readable, but is too closely packed with facts to be stimulating. As an introductory sketch, however, it may serve the purpose for inducing some readers to follow the subject at greater length.

H. S. H.

Dravidian Problems.

Elmore: Richards.

Dravidian Gods in Modern Hinduism; A Study of the Local and Village Deities of Southern India. By Wilber Theodore Elmore, Nebraska University Studies, January, 1915. 8

Side Lights on the "Dravidian Problem." By F. J. Richards. Madras Literary Society and Auxiliary of the Royal Asiatic Society.

Dravidian problems in India have not received the amount of attention in the past that their importance merits. In making this statement I am not unmindful of the excellent work which has been done by many scholars, both Indian officials

and private investigators. But the relation of Dravidian culture to the history of civilisation as a whole is of such crucial significance that more light must be shed upon the early history of India in Dravidian and pre-Dravidian times before it will be possible to view the development of civilisation in its true perspective.

The chief importance of the two essays under review is the indication they afford of the growth of interest in these vital problems. Mr. Elmore's thesis may be regarded essentially as an elaboration of Bishop Whitehead's report upon "The Village Deities of Southern India" (*Bull. Madras Government Museum*, Vol. V, No. 3, 1907). Having lived in intimate contact with the Telugu people since 1900, except during 1909-10, when he sat at the feet of Professor Hutton Webster in Nebraska, the American scholar was able to gain the confidence of the Dravidian people and to collect at first hand a great deal of invaluable information, which he has woven into the texture of the body of knowledge collected by earlier investigators, to whose work he gives full bibliographical references. The research is quite local in character; Mr. Elmore records his results and discusses their significance only from the point of view of their development on the spot, without any help or interference from the rest of the world. This, of course, is the attitude one would expect from a disciple of Dr. Hutton Webster's. But while the absence of any attempt to link up these local events with the great intellectual movement of the world at large means that Mr. Elmore has refrained from reaping the rich harvest which his careful researches have earned, it is not for his readers to complain if he leaves it to them to do the garnering.

To one who is acquainted with the earliest cultures of the Southern Asiatic and North-Eastern African littorals the fundamental unity of the customs and beliefs at once impresses itself upon the attention. It reveals a community of origin which is as clearly apparent as the racial kinship shown in the physical characters of a large section of the Indian people and the members of the Brown Race living further west. But it is unlikely that this undoubted racial affinity affords the whole explanation of the remarkable identities of customs and beliefs that are found in Dravidian India and in East Africa. These are due in part to cultural contact after the spread of the eastern wing of the Brown Race into India.

What renders the detailed information collected by Mr. Elmore peculiarly valuable and interesting is that it illuminates relatively primitive beliefs and practices, the meaning of which is at the present time being elucidated from another side by the intensive studies of the earliest Egyptian literature (especially by Sethe, Alan Gardiner, Breasted, and Blackman) and Baganda analogies (Roscoe, Seligman, and Murray). The same conception was entertained in Dravidian India and in Egypt during the Pyramid Age of the possibility of animating a stone or pottery model of some deceased person. In both places this process of animation was effected by a priest who performed certain ritual procedures to enable the breath of life to enter the stone or pottery figure; the vitalisation was completed by incense-burning and the pouring out of libations, the evolution of which, practices in Egypt has been explained by Mr. Aylward Blackman by quotations from the Pyramid Texts and other early Egyptian literature.

The other ritual procedures of the Dravidians are also clearly inspired by western motives. The attention of the deity is attracted by the blowing of a conch-shell trumpet or by beating a drum, and consciousness is restored for the time by offerings of blood, which is the vehicle of the feelings and the will. As in Egypt, the deity is some deceased person who has been restored to life again; and for the continuance of this existence is wholly dependent upon the living, without whose supplies of food and drink the maintenance of "life" is impossible. Nor can the deity become animate without incense and libations and the ritual of conveying the breath of

life. Both in Egypt and India the statue itself was not the object of worship, but merely the body which could at times become animated by the spirit of the dead.

It is also significant of these early western sources of inspiration that among the Dravidians most of the deities were female. For, as I have explained elsewhere, there are reasons for believing that the earliest deities were personifications of the female reproductive functions, and that they were originally developed somewhere in the region of the Red Sea.

In addition to the belief that stones, whether hewn or not, may become temporarily animated by the spirits of the dead, the Dravidians also believe in the petrification of living beings (p. 69). The story is completely rounded off when such a petrified human being becomes the actual dwelling place of its own spirit, and the unshapen block of stone is carved into a statue of the deceased. Such statues may have temples built around them; and it is a matter of peculiar interest to note that such structures in many cases conform in all essential respects to the type of dolmens (see Plate V).

Further information upon this subject has recently been given by Mr. A. H. Longhurst in the extremely interesting *Annual Report of the Archaeological Department* (Southern Circle, Madras) for the year 1915-1916, p. 29. Real dolmens were made, as in the Mediterranean area. Sometimes at later periods these ancient dolmens were converted into hero-shrines, crude representatives of the chief or warrior being placed in the dolmen. In other places the dolmens were converted into Siva shrines, the stone linga and yoni being placed in the western chamber of the dolmen, where in other cases the statue or bas-relief of the deceased was housed. Mr. Longhurst has made the interesting suggestion that the so-called Dravidian type of South Indian temple may have been derived directly from these dolmens.

These facts afford remarkable confirmation of the views which I set forth in 1913,* that the dolmen represented the serdab or statue-chamber of the Egyptian tomb or, in the case of the dolmens with two or three chambers, the western one was the serdab. The plates (I-IV) published by Mr. Longhurst indicate how close the analogies are.

Mr. Richards "cannot say whether there is any evidence to corroborate the "apparent relationship of Indian and Mediterranean dolmens" (p. 11); but his claim that "the Megalithic Art of Europe, North Africa, and Syria was probably "the parent of the tomb architecture of Egypt," shows a strange disregard of chronology and a reversal of cause and effect. On the next page he quotes with approval Jouveau-Dubreuil's opinion that "no foreign element has ever been introduced into Dravidian architecture," which is obviously untenable. Mr. Richards says, "the resemblance between the Dravidian *Gōpuram* and the pylons of Egyptian temples had led to the conjecture that the one is derived from the other. "Unfortunately they are separated by an awkward chronological gap too large for "a scientific mind to leap over" (p. 12). But even the ethnological mind finds no difficulty in jumping over the "awkward chronological gap" that intervenes, say, between the British Museum building in Bloomsbury and the classical Greek edifices to which it is affiliated. The fact that the present *Gōpuram* are much later does not dispose of the possibility that they were preceded by series of temples made of flimsier materials which were inspired directly or indirectly from Egypt. There is a similar "awkward gap" between the Soudanese and the Egyptian Pyramids. But does anyone doubt the derivation of the former from the latter on that account?

* "The Evolution of the Rock-cut Tomb and the Dolmen," *Essays and Studies presented to William Ridgeway*. Cambridge, 1913.

All of the varieties of southern Indian architecture clearly bear the impress of their western origin. The dolmens of India and the Mediterranean types, the Dravidian *Vimānam* and the Babylonian *Ziggurat*, and the *Gōpuram* and the Egyptian temple of the New Empire type, are each of them linked to its fellow by definite bonds of affiliation.

But these connections with the west are substantiated not merely by resemblances of a general order in the ritual and beliefs associated with "idols" and in the structure of the tombs and temples, but also by many unessential and wholly arbitrary details which, like vestigial remains in biology, afford the most definite and convincing evidence of genetic relationship. Such, for instance, is the custom of offering as a sacrifice the bleeding leg of a buffalo, just as in Egypt during the Old Kingdom the leg of an ox was presented. The remarkable beliefs concerning the evil eye and the use of ithyphallic scarecrows are further illustrations, picked at random from the scores of instances of peculiar customs which Mr. Elmore has cited.

Mr. Elmore lays great stress upon the malignant nature of the Dravidian deities (p. 143), who are said to be mostly the ghosts of wicked people "with a grudge against the world which used them so badly, and so return to get satisfaction" (p. 144). But this hardly applies to some of the cases of deification in recent times to which he refers as instances of exemplary altruism. This theory of ghosts is so often set forth as an explanation of fear of the dead in all parts of the world that one would like to have fuller information from Mr. Elmore in substantiation of his opinion. For in several places (Egypt, Indonesia, and Japan, for example), where the investigator has been able to penetrate into the real psychology of the people, it is not animosity, but undue affection of the dead for the living, that is to be feared. And it is the most beloved friends rather than the enemies of the dead who are most likely to have reason to be afraid. In other words, when the dead is about to take flight to the other world, wherever it may be, he will endeavour to steal the "soul-substance" of his dearest friends, so that even in death he may not be separated from them. The living, according to this view, have good reason for being afraid; but it is not the hatred but the affection of the dead that threatens their lives. Much of the confusion in the Dravidian beliefs, the undisguised animosity and vindictiveness, intermingled with the more benevolent way of inflicting harm, may possibly be explained by an imperfect appreciation of the thin dividing line between the kindly and the malicious ways of doing a thing which, in either case, is unpleasant, and has a malignant look.

Mr. Richards tells us that he has "scampered erratically over the greater part of the earth's surface in his quest for light on the Dravidian problem." This is a not unfair description of an essay which lightly skims the surface of conventional opinion over the whole field of anthropology, archæology, ethnography, and sociology, so far as these relate to Dravidian India.

I have already cited two examples of his argument, which he himself defines when he claims that "he rejects the dogma that 'independent origins' are impossible" (p. 5). As an academic possibility, and quite apart from the disconcerting evidence of facts, such a confession of faith is unimpeachable. But to the multitude who share this soothing belief, it is interpreted as meaning that in every case the invention of any element of culture must be sought locally. This also is a right and proper attitude. But the transition from admitting the possibility of local evolution to the assumption that this process did actually occur on the spot is perilously easy, and both Mr. Richards and Mr. Elmore have slid from the attitude of critical impartiality into the position of partisans.

Mr. Elmore does not discuss the wider bearings of his results except by implication. For he devotes a great deal of attention to the development of new deities, of which process he gives chapter and verse. But if he intends his readers to assume that such instances really explain the origin of Dravidian customs and beliefs, he is making large demands upon their credulity. The creation of these new deities is determined entirely by the body of beliefs already in existence; the new goddesses are true to the type of their predecessors; they are frankly imitations of them. These events shed no more light upon the history of Dravidian religion than the establishment of a new factory for making matches does to illuminate the evolution of the match.

In spite of his neglect of the discussion of the wider bearings of his evidence—or perhaps even because of it—Mr. Elmore's work is most welcome, for it provides the kind of information that is so difficult to obtain, and of priceless value when it has been obtained.

G. ELLIOT SMITH.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL
INSTITUTE.

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(Donor indicated in parentheses.)

An Alphabetical Index to the Classified Catalogue of the Library of the Director-General of Archæology, India: Part I. Author Index. Part II. Subject Index. By M. N. Basu, B.A. 10 × 7. 161 pp. and 301 pp. Government Printing, India. 5s. 6d. and 10s. (The Director-General of Archæology.)

Primitive Ritual and Belief. By E. O. James, B.Litt., F.G.S. 7 $\frac{3}{4}$ × 5. 239 pp. Methuen & Co., Ltd. 5s. net. (Publishers.)

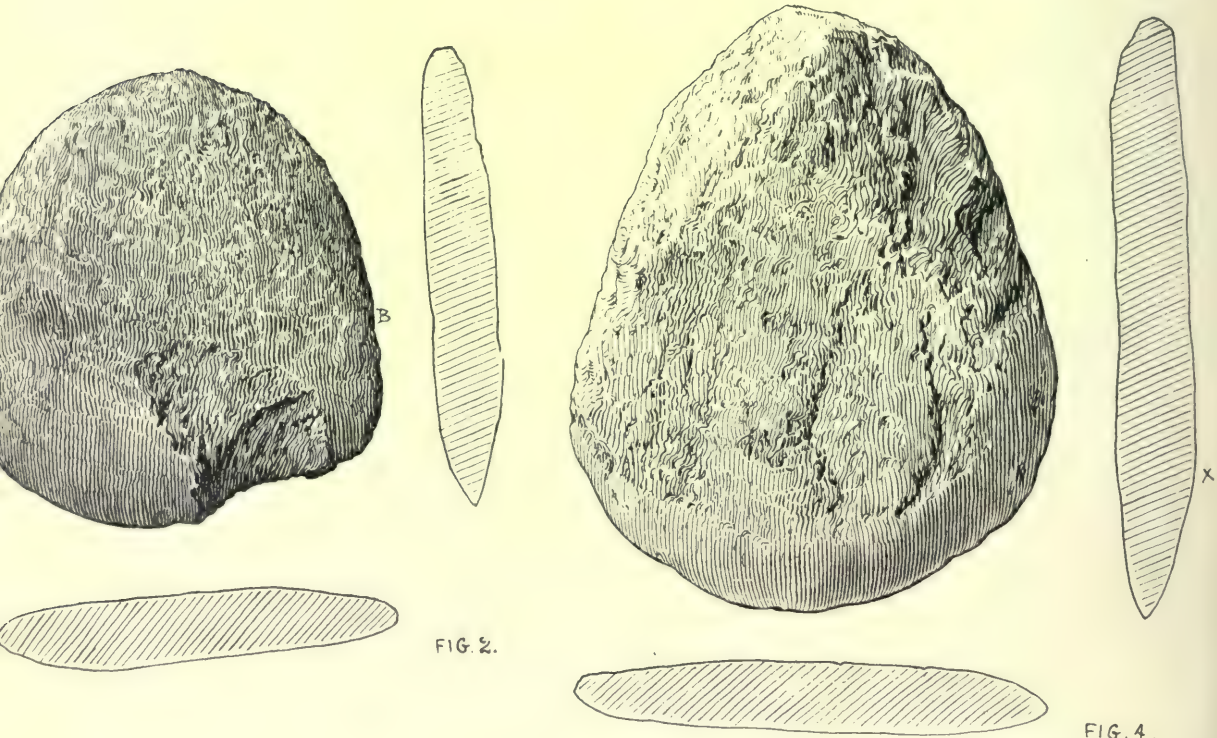
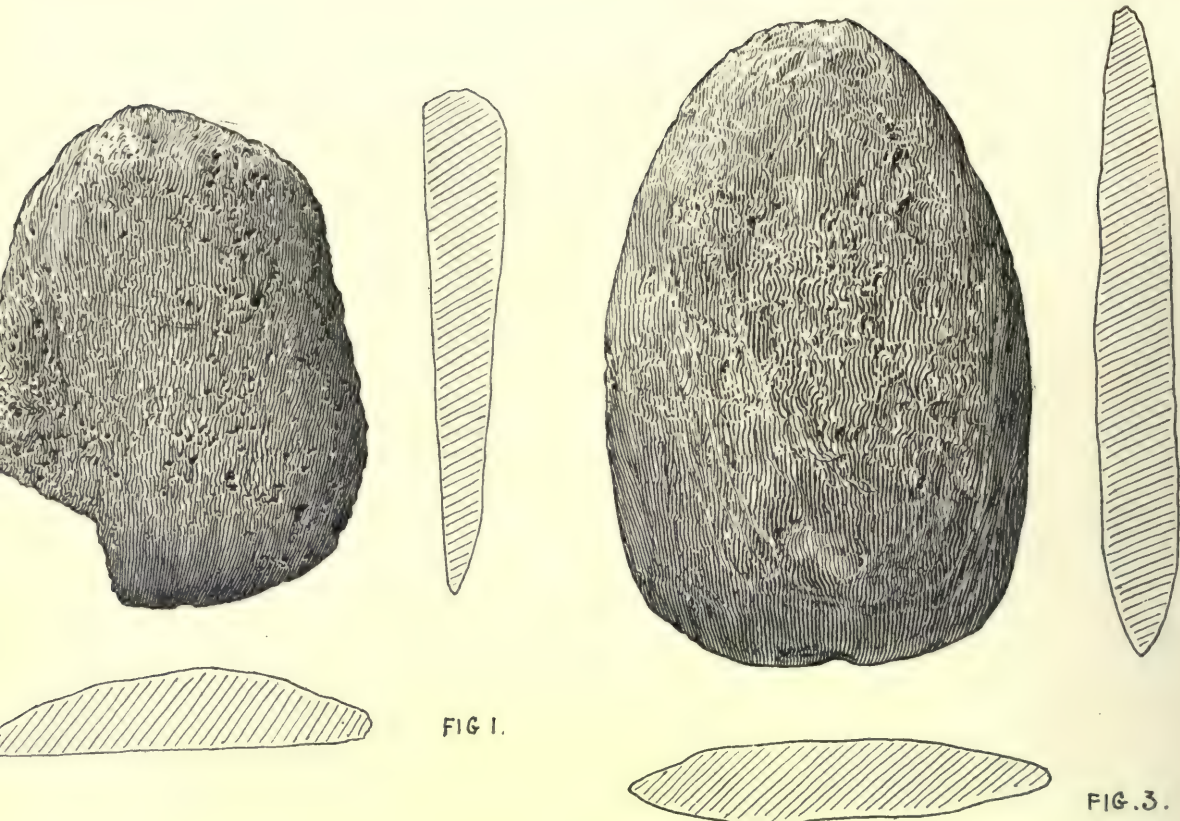
Tools and Weapons Illustrated by the Egyptian Collection in University College, London, and 2,000 Outlines from Other Sources. By W. M. Flinders Petrie, F.R.S., F.B.A. 12 $\frac{1}{2}$ × 10. 65 pp. 79 plates. British School of Archæology in Egypt. (The Author.)

Round About the Torres Straits. By Rev. Gilbert White, M.A., D.D. 7 $\frac{1}{2}$ × 5. 95 pp., illustrated. Society for Promoting Christian Knowledge. 2s. (Publishers.)

Bijāpūr and its Architectural Remains, with an Historical Outline of the Ādil Shāhi Dynasty. By Henry Cousens, M.R.A.S. 13 × 10. 132 pp. 148 plates. 28 illustrations in the text. Government Central Press, Bombay. 3l. 1s. 6d. (The Secretary of State for India.)

Pastels from the Pacific. By Frank Lenwood. 8 $\frac{1}{2}$ × 6 $\frac{3}{4}$. 219 pp., with illustrations in colours and black and white. Oxford University Press. 7s. 6d. net. (Publishers.)

Archæological Survey of India. South Indian Inscriptions. Vol. II. Part V. Pallava Copper Plate Grants from Velurpalayam and Tandantottam. By Ras Sahib H. Krishna Sastri, B.A. 41 pp. 2 plates. Government Press, Calcutta. 3s. 3d. (Superintendent.)



STONE IMPLEMENTS.

ORIGINAL ARTICLES.

Queensland: Archæology. With Plate B.

Ling Roth.

Note on some Large Stone Implements from Queensland. By **10***H. Ling Roth.*

These implements, which are of interest on account of their size, were obtained by Mr. E. Couchman in 1887-8, when they were ploughed up by his men in the land, since known as the "Queensland Sugar Plantation," on the south branch of the Johnstone River, on the Pacific Coast of Queensland. The ploughs were working to a depth of 15 to 18 inches, being drawn by six horses each. This land, the soil of which consists of a deep black mould, had been cleared of dense "scrub" six to seven years previously. From that time up to the time of the find it had only been touched by hoes, with which holes about 8 inches deep had been made for planting sugar-cane cuttings. The stones were found at the first ploughing. They have been in Bankfield since 1901, when the late Dr. F. W. Rudler kindly examined them for me. In the illustrations the stones are all shown with the cutting edge pointing downwards.

FIG. 1.—Dr. Rudler examined a section of this stone under the microscope, and said it "shows a rock decidedly of igneous origin, but so weathered and altered " as to render it difficult to say in precise terms what it originally was. I think, " however, that " you may fairly " regard it as an " altered diabase."

This implement is peculiarly shaped, being rubbed to a smooth, flat surface on one side. The other surface is well ground, but still shows the natural pitting in considerable quantities. Dimensions, $5\frac{5}{16}$ in. by $4\frac{3}{16}$ in. by $1\frac{1}{8}$ in. (13.5 cm. by 10.6 cm. by 2.85 cm.). The large fracture shown in the illustration is an old one.

FIG. 2.—An argillaceous grit. Dimensions, $4\frac{5}{8}$ in. by $4\frac{1}{8}$ in. by $1\frac{1}{16}$ in. (11.7 cm. by 10.5 cm. by 2.7 cm.). Is well ground towards the cutting edge, and shows

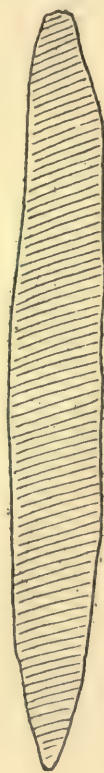


FIG. 5.



very distinct traces of artificial grooving for hafting on both surfaces A to B, and round back to A, but not on the edges. It is the only one of the six implements which shows such signs.

FIG. 3.—A shale. Dimensions, $6\frac{1}{2}$ in. by $4\frac{5}{8}$ in. by $1\frac{5}{8}$ in. (16.5 cm. by 10.9 cm. by 2.9 cm.). Of very regular shape and quite the most regular of the lot. Well ground all over except slightly towards the upper end. The fracture on the cutting edge is old.

FIG. 6.]

FIG. 4.—A shale. Dimensions $6\frac{1}{2}$ in. by $5\frac{5}{8}$ in. by 1 in. (16.5 cm. by 13.5 cm. by 2.5 cm.). Except at the cutting edge it has been left very much in the rough. There is almost a shoulder on one surface (x). The cutting edge is much cross-striated, and gives the impression of being in process of regrinding after considerable wear.

Fig. 5.—A micaceous grit. Dimensions $7\frac{3}{8}$ in. by $5\frac{3}{8}$ in. by $1\frac{3}{8}$ in. (19.8 cm. by 14.8 cm. by 3.5 cm.). Only the cutting edge is fairly ground, the rest of the surface being left in the rough. The cutting edge shows signs of wear, and has a recent fracture.

Fig. 6.—An arenaceous shale. Dimensions $8\frac{3}{8}$ in. by $5\frac{1}{8}$ in. by $1\frac{7}{8}$ in. (20.8 cm. by 15.1 cm. by 3.1 cm.). Like the above two, except for the cutting edge it has been left in the rough, showing original pitting. The fracture on the cutting edge has been worn quite smooth.

Writing to me about these implements in August 1901 my brother, Dr. Walter E. Roth says: "The stone axe-heads from the Johnstone River are not used at the present day (indeed, within my district at the present day I can safely affirm that no stone axes are used). Within the next few weeks I propose looking for the quarries whence these stones are derived—one, I believe, is somewhere in the neighbourhood of Mount Mackay, close to the Tully River, the

"other about 90 miles (Mount Elsie Station) south of Charters Towers—which would appear to have afforded the supply for these particular portion-of-east-coast weapons. I myself have got them from Herberton. They are large and flat with a central groove, and so far it has been a puzzle to me how this groove has been made. Sometimes both extreme points are sharpened, while lower down the coast (e.g., Herbert River), the groove is markedly to one (the thick) end, and the stone more wedge-shaped." In his *Ethnographical Studies*, p. 151, he mentions one in his possession, "found in the neighbourhood of Boulia, measuring 9 inches in its greatest diameter," which is considerably larger than any in the collection under review. He has since informed me that he was unable to undertake the expedition to the quarries as contemplated. In so far as I can ascertain no such large dressed stones are found elsewhere in Australia, but we have a very similar implement (Fig. 7) from Lifu, Loyalty Islands, in the Kennedy Collection, Bankfield Museum, which Dr. Hickling informs me is of impure jade. The dimensions are $8\frac{1}{4}$ in. by $5\frac{2}{3}$ in. by $\frac{3}{4}$ in. (21 cm. by 15 cm. by 2.5 cm.). The cutting edge, following the natural fracture of the stone, is curved, as shown by the

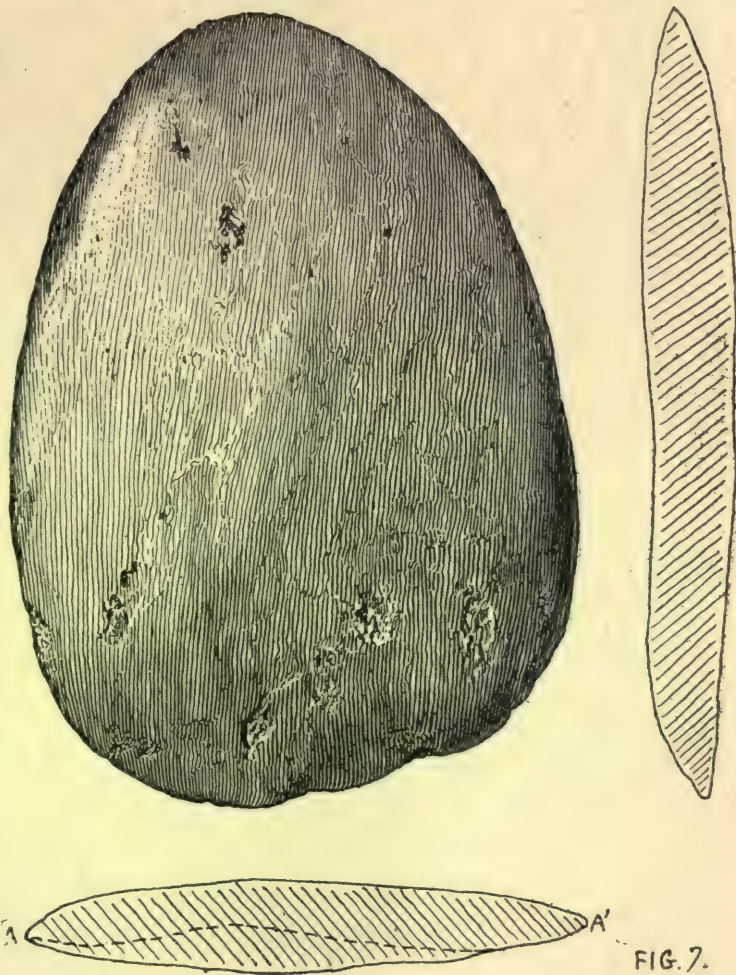


FIG. 7.

line A A' A'' in the cross section. It is not as large as some of the big New Caledonian stones fastened at right angles to a handle by sinnet passed through two holes in the stone.

H. LING ROTH.

Borneo: Technology.

Evans.

A Brass Drum from Borneo. By Ivor H. N. Evans, B.A.

I purchased the brass drum figured in the illustration at the village of Koung Ulu, in the Tempassuk district of British North Borneo, in 1915. The inhabitants of the village, who are Orang Dusun, were unable to inform me whence

it had originally come, and I doubt if that people are responsible for its manufacture. At the present day, at any rate, they only cast very small articles in brass.

The height of the instrument is 36.7 cm. and the diameter of its base 20.4 cm., while the tympanum has a diameter of 23.6 cm. A dot marks the centre of the tympanum face, and this is surrounded by four sets of lightly marked concentric circles. There is a small hole towards the edge, which appears to have been made with a drill. The lower part of the tympanum fits inside the body of the drum, and was formerly secured by three screw-rivets, one of which is now missing. The thread on these appears to be a left spiral. The line of juncture, as can be seen in the illustration, is covered on the outside by a band of dark-brown bees'wax. The body of the instrument is composed of two sections, a top and a bottom, these parts meeting outwardly at the centre line of the "waist." As far as can be seen on examination, the joining was effected by brazing a band, partly projecting, internally round the base of the top section, the bottom section being attached to this

by means of three equi-distant rivets. The external "seam" is partly filled in with the alloy used for brazing. The four handles, which are perforated, appear to have been cast in one piece with the top section of the drum, the perforations having been made in the casting, and not subsequently. In two places, owing to slight imperfections in the work, parts of the pattern, which should obviously be open, are filled with a film of metal. The *cira perduta* process seems to have been employed in casting the various sections of the instrument.



The patterns in relief with which the drum is decorated can be well seen in the illustration. That* between the handles is of a type frequently found on silver and brass articles from the Malay Peninsula and the Malayan region in general, as well as on Chinese pottery, etc. The patterns just below the waist, also common in the Malayan region, appear to be de-

rived from some kind of leaf. The four human figures towards the base are all identical. One noteworthy point about them is that the ends of the clothes on the thighs are turned upwards in a way which is reminiscent of that seen in representations of the mythical characters of Burmese legendry and of the figures used in Siamese and Malay shadow-shows.

I. H. N. EVANS.

Finland: Magic Ritual.

Bonser.

The Magic Birth "Motif" in the Kalevala. By Wilfrid Bonser, B.A.

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There are three examples of this *motif* in the Kalevala, all of which in one way or another conform to the "Aryan expulsion and return formula." The three examples occur in Rune 1, in the case of Vainamoinen; in Rune 31, in that of Kullervo; and in Rune 50, where the Wonder-Child is born.

* A flower with a long pistil and rather loosely-spread petals (*Hibiscus*?).

Vainamoinen is born supernaturally. His mother, Ilmatar, bears him for 700 years before she is delivered, and at the end of that time Vainamoinen, now fully grown in mind as well as in body, takes matters into his own hands. Many years of parturition appear to be a sign of divinity, since there are other examples of it in legend: Aditi bears Vishnu for 1,000 years, and Rhea, according to Herodotus, bears Isis for so long that the latter is already about to become the mother of Horus by her brother Osiris before she herself is born.

Kullervo is, like the Esthonian Kalevipoeg, a posthumous son. While yet an infant, he breaks his cradle, and, like Herakles, rends his swaddling-clothes. Born in captivity, he is duly exposed by his captors, but miraculously survives all their attempts to kill him. His subsequent career agrees also in many particulars with the formula mentioned above, but this is beyond the scope of the present article, which deals only with birth.

The remaining example comes at the end of the "Kalevala," where the virgin Marjatta conceives through swallowing a berry. Rune 50 is the epic narration of the conquest of Christianity over the older religion as personified in Vainamoinen, the master-wizard. While it has much in common with the usual pagan Wonder-Child story, its similarity to the Gospel story will be seen at once, despite the difference in names. Marjatta may be the same name as Mary, but it is more probably a diminutive formed from the Finnish *marja*, a berry. Stress is laid on the high quality, as well as the purity, necessary for the virgin-mother.

Marjatta is delivered in a stable. The horse breathes upon her body, and so keeps her warm. This serves the same purpose as the vapour bath which she had desired to have at the time, but which was denied her by Ruotus and his wife.* There is a Persian custom at childbirth which bears a curious analogy to this. "On those occasions," says Báji Yâsmin, "when great pain ensues, it is necessary, for the purpose of alleviating the symptoms, to pour barley into her [the mother's] lap, and bring a horse to eat it there; for seven days she must be called Mariam, and her own name not mentioned, otherwise she will fall sick and be in danger."

The berry which Marjatta swallowed has been the occasion of some discrepancy among both translators and commentators. Crawford says that it looked like a cranberry and tasted like a strawberry; Kirby calls it a cranberry; Comparetti, a blackberry; and Hartland the red bilberry. All these, with the exception of the blackberry, grow on low plants; the "Kalevala" says that it had to be brought down with a stick as it was too high to be picked, and as it grew "on a tree too weak for climbing." The cause of the difficulty is evidently that there is no exact English equivalent. The word in the original Finnish is *punapuola*, which is a kind of cranberry, but it is smaller and sweeter than those which are found in this country. Mrs. Tweedie, speaking of the food of the modern Finns, says that "there are numbers of wild berries in Finland; indeed, they are quite a speciality." She then gave a list of them, which, though it does not mention the berry in question, includes the strawberry, red whortleberry, and cranberry, besides several for which she gives no English equivalent.

The *motif* of conception through the eating of fruit is also found in the legends of other races. Hartland, in the "Legend of Perseus," gives a close parallel. In China, the late Manchu dynasty is said to have had its origin in a similar way. Its ancestress was Fokolun, a heavenly maiden, who, after bathing in a pool, found on the skirt of her garment a red berry that had been placed there by a magpie. By eating it she became the mother of Aisin-gioro, the hero who was to restore peace to his people. Similar stories come from India and elsewhere.

* It is still the custom of women in Finland to repair to the bath house in order to facilitate delivery.

Another example, though slightly veiled by the editor, occurs in the 30th chapter of Genesis. It is the story of how "Rachel ate of the mandrakes which her sister had given her, and having eaten of them, she also conceived, and bare a son, and she called his name Joseph."* Sir J. G. Frazer thinks that in the original narrative, Rachel's pregnancy was due merely to her eating the yellow berries of the mandrake.

In Irish legends, the berries of the mountain-ash or quicken-trees have magic properties, and are the food of the fairies, jealously guarded from mortal taste. These fairy berries, which, like Iduna's apples, have the gift of endowing the eater with eternal youth, are not bitter like those of the ordinary mountain-ash, but are said to have a delicious flavour, and might therefore be well compared in taste to Marjatta's berry. The mountain-ash, as well as the nearly-allied sorb-tree, is several times mentioned in the "Kalevala"; its berries were consecrated to Rauni,† the consort of Ukko, and part of the sledge of Vainamoinen, the great enchanter, was made of its wood. Since this tree, in legend, is especially connected with shepherds, and regarded by them as having magical properties to protect their sheep and cattle, one would expect the shepherdess, Marjatta, to have swallowed one of its berries; but the Finnish story has made its own selection.

WILFRID BONSER.

Polynesia: Technology.

H. G. Beasley.

Matau Hokori. By H. G. Beasley.

Supplementary to Mr. Ray's article in MAN, 1917, 130, on "The People of Greenwich Atoll," I venture to send you a sketch of the large wooden hook



(*Matau Hokori*) that he mentions, together with a few remarks thereon. Mr. Ray shows that the arts and crafts of these people (who a few years ago numbered 150†) are mainly negative, and as specimens are practically unknown, it may not be out of place to record at least one authentic object from this locality. This hook I obtained at the sale of Commander Erskine's collection, and it bears the original label.

It is, I think, the crudest specimen of any that come from the Pacific, formed originally from a natural root of pale-coloured wood, of light weight; the maker hardly troubled to remove the notches, and in many places has left the bark intact. The barb is of similar wood, and shows a certain amount of skill in the way it is scarfed to the shank, and appears to

have been fashioned with some blunt instrument and afterwards finished with a rasp. The lashings of the barb as well as all that remains of the snood are of two-ply twisted sennit of rough and coarse workmanship. The greatest length is

* Frazer: "Jacob and the Mandrakes," in the *Proceedings of the British Academy*, Vol. VIII, 1917.

† In Swede-Lappish *raunda* denotes the mountain-ash; cf. Scots "rowan."

‡ Brigham: *Index to the Islands of the Pacific: Honolulu*. H.I.

$7\frac{3}{4}$ inches (18.7 cm.), the width $5\frac{1}{4}$ inches (13.3 cm.). Taken as a sample of native skill, the result is poor in the extreme; but such is not surprising, considering the remoteness of this tiny group of islands and the smallness of the population.

HARRY G. BEASLEY.

Ibo: Folk-tales.

Thomas.

Stories (Abstract) from the Anka Neighbourhood (I). By N. 14
W. Thomas.

1. BLIND HUSBAND.

The tortoise took a goat, went to a blind husband and wife. The wife asked her husband where the goat was. The husband said, "She is with the tortoise." She ran after the tortoise. Her husband said, "The goat has gone from the tortoise to the he-goat's." When she found the goat she sat down. She crawled on the ground. The horn of the he-goat pierced her. She found it in the ground. She found the goat was with the he-goat. She dug the goat out and went to her husband. They killed it, shared it, cut up some, put that in the soup, and hung the other in the dry. Her husband took a cloth, tied it to the meat over fire. There were ten pieces of meat. The wife said she would eat five, her husband five. They began to eat. The wife said she had only four; her husband said the same. Who ate the other piece? Quarrel.

The tortoise came again and stole. He took a leg so that the cock laughed; he was waiting to fly away with it. Husband and wife caught the cock; tied it to a stick and said they would kill it. They smelt something in the fire and said perhaps it was their meat, but found nothing. The husband called the cloth. It said it was in the hands of the tortoise.

The tortoise was hiding in a bush. The tortoise ran and met the he-goat planting yams. He said "penis and testicles are too big, tie this cloth." He tied the cloth. The tortoise ran away. The husband and wife came and called the cloth. It answered, "I am on the waist of the goat." Goat jumped and bleated, then dug a hole and covered itself. The wife crawled on the ground. The horn pierced her, she dug it up, tied it with string and went home. "You are to smell and all your children! Let it go."

2. CRIPPLED WOMAN.

A woman with a half hand said she had no father or mother and always walked in the bush. A cat went in bush and saw her. It said, "It is not good to walk in the bush, follow me to my place." The woman said, "No, they will laugh at my half hand." "No, we will pass another road." The cat told her, "Cook boiled yam, mash it."

One day the cat went to the bush, saw the half hand of the woman, picked it up, took leaves. Went home and gave the half hand to the woman and joined it.

One day the old wife of the cat had seen woman and laughed. She took a calabash and stick and told all the women to come on five *eke** and five *oye** days and clap hands in an open place to say who had a half hand.

All the women came and clapped one by one. One woman was left. The cat wife told her to clap; she did. The women said, "We all have hands."

The cat was angry. One day he gave plantain to the new wife to roast, cut up and add palm oil, mix and go to fire, put pot down and small mat near fire; she was to put the other on her body. "When the old wife goes to fetch leaves for food, and she calls you, call her and give her plantain to eat; you don't eat it because you are sick." The cat came, ate plantain without asking and got four

* *Eke* and *oye* (*olie*), two of the days of the four-day week; *afu* and *nhwo* are the other two.

tails. The new wife laughed and called the women to see who had a tail. They came. All the women were ordered to strip. She would not strip and they made her. "That is forbidden," they said, and took her and killed her in the bush.

3. TWO GIRLS.

Two girls went for firewood. They got firewood, one more than the other. They tied bundles. *A* asked for help to put it on her head. They went back. *B* said, "Let us wash." "All right." *B* pushed *A* into the water and nearly drowned her; then took all the firewood.

A reached a big tree and climbed up. She heard man cutting tree for palm wine and sent him to her home. He told her father. He and her mother carried her out and gave her medicine. They brought the other girl and hanged her. Cuku looked up and looked down and said, "Who gets few things shall not kill one who gets many."

4. ORPHAN.

A man had wife, she had no children. She said she would have a child, and he said he would die if it were true. She said she would die twenty days after its birth, and so it was.

It was a boy; he stayed on a plank; in one day he stood up, for no one looked after him. The boy walked, and no one gave him chop. He went to Obu and saw a pot. He looked in it. The pot broke and a big *eke** came out. He went to the boy; *eke* told the boy not to run; he would kill him if he did; "Take me to the yam store," he said.

Eke called the boy, he was to come on *eke* days. He gave him *okbulukwēke* (makes fufu), *ofanweke* (good things). The boy asked for chop and *okbulukwēke* made fufu. He asked for children and got eight sons, eight daughters, eight brooms for sweeping house, and eight hoes for the boys!

5. BUSH CAT, MONKEY, ETC.

The tortoise told the bush cat to kill his brother, Nyagu. "When you kill him, take Nyagu's share" (*i.e.*, the leg of animal). When he killed him and they made another's title, the tortoise took all, including the leg. The bush cat cried, "Nyagu, my brother."

The monkey lost its fish; it was stolen. He called other monkeys and told them to swear *iyi*† for it and then hang *ekbili* and *oyglo* (= 'drumstick [*oyo*]) on the tree. They were to point the hand at them and say, "If I took the fish, may they kill me, if not may they keep still." The thief came and they fell and killed him.

The tortoise came to the market and told the animals, if they fought he could take his foot and tread on a woman. They fought and pushed the woman down and she died. The tortoise denied it when they asked. They pushed the tortoise. He said he would say who was the culprit and said the elephant and the 'cob. "Why did you say you would kill her?" they asked. "We will kill you." They did so.

The animals held a meeting; one said, "If anyone talks as the tortoise did, let us take it and put it in the water and tread it in the mud; so that we kill it."

One day the hawk and the vulture quarrelled. The hawk said, "If we fight, I can win." The vulture said the same. So they fought, and the vulture won. The hawk cried, "*Iwe, ewe, ewe.*"

* *Eke* python.

† *Iyi*, oath taken on a stone or sacred object.

6. CUMULATIVE TALE.

A woman went to her grandmother's and picked *ekwulugede* on the road. The grandmother brought two yams and asked for the *ekwulugede*. She said it was not enough. Her mother's mother asked again so she gave her it.

She went to the forge and said to the blacksmith, "Will you take two yams to eat and make me a cooking knife?" "All right," he said. He ate them and made the cooking knife. She went out and cursed him and asked for yams back, "*Ekwulugede*, my mother's mother gave them to me; *ekwulugede*, my grandmother ate my *ekwulugede*."

She reached a man clearing the bush for yams; he said he had not a good knife, so he took the cooking knife, cut a bush with it, and broke it. She cursed him, "He broke my knife, the blacksmith ate my yams, my grandmother ate my *ekwulugede*." Then he gave her a hooked stick.

She found a man in a tree taking *oto* seed and gave him the hook. The man climbed down and took it and got two seeds with it and broke it. "My grandmother took my *ekwulugede*, the blacksmith ate my yams, a man broke my knife." Then he gave her two *oto* seeds.

She found women on the road home, going to market. She told them to eat as they were hungry, and said, "My grandmother took my *ekwulugede*, the blacksmith ate my yams, a man broke my knife, a man broke my hooked stick." Then they gave her a bag of salt.

She went on and saw some sheep eating grass. She asked them if they wanted salt and put it down and said, "My grandmother took my *ekwulugede*, the blacksmith ate my yams, a man broke my knife, a man broke my hooked stick, the women ate my *oto* seeds." Then the sheep took out their eyes and gave them to the woman.

She went on and saw a worm (*idide*). She said, "You have no eyes. My grandmother took my *ekwulugede*, the blacksmith ate my yams, a man broke my knife, a man broke my hooked stick, the women ate my *oto* seed, the sheep took my salt." The worm went into the ground, the woman dug it up and took half, and half went into the ground.

So now when they go to farm they cut the worm in two and half goes in ground.

N. W. THOMAS.

REVIEWS.

South America: Prehistoric Bronze.

Mead.

Anthropological Papers of the American Museum of Natural History. 15
By C. W. Mead. Vol. XII, Part II. New York: 1916.

This is a valuable treatise on a subject about which definite information has been forthcoming only in the last few years. Formerly there was an impression that the ancient folk in South America had used bronze in a vague way by chance of fusion, and it was not until after the French expedition to Bolivia, when M. Adrien de Mortillet collected and analysed some bronze objects, that he was able to announce his conviction that the proportions of tin and copper were intentional.* To those who knew what had been done in metal by the pre-Columbian inhabitants of Mexico, Ecuador, and Peru, this was obvious, and fresh discoveries are constantly increasing our information as to the marvellous skill in combining metals shown in many parts of America.

The lamented Dr. J. B. Ambrosetti published in 1904 his *Bronce en la región*

* At the first meeting of the Congrès Préhistorique de France, Périgueux, 1905.

Calchaqui, with illustrations and analyses of the remarkable bronze plaques* and other objects found by him in Northern Argentina. He figures two pieces of slag "personally extracted from ruins during my expedition of 1896," one at Fuerte Quemada, the other at Tolombon. Analysis gave 3·22 of tin in one and 1·34 of tin, with 0·40 arsenic, in the other. The finding of furnaces, melting-pots, moulds for casting, and slag in the ancient ruins makes it certain that the bronzes were cast on the spot, as described also by Dr. F. P. Moreno at Antofagasta de la Sierra.

Mr. C. W. Mead, Curator of the South American department of the American Museum of Natural History at New York, is now able to present tables of 160 analyses of prehistoric bronze and copper objects from Peru and Bolivia, which leave no doubt as to the intention of the makers. He notes (after Boman, Verneau, and Rivet) the progressive increase in the use of tin from north to south in Peru and gives illustrations of the different types of objects. Having had the good fortune to obtain a copy of the rare *Arte de los Metales*,† Mr. Mead quotes from it to show that before the Spaniards came the Indians knew how to mix tin and copper, taking one pound of tin and from four to eight pounds of copper, according to the variety of the tin, "to give hardness to their instruments and arms, as we "use steel or tempered iron, which were unknown to them." Barba was priest of San Bernardo, in the heart of the mining district of Bolivia, and director of the mines there. He gives interesting details respecting the tin mines and the qualities of the metal. The Inca Garcilaso de la Vega also wrote: "They worked with "certain instruments they had of copper mixed with a sort of fine brass." In his time tin was often called brass, and Mr. Mead calls attention to the fact that in the Pentateuch bronze is translated brass.

During Professor Hiram Bingham's expedition to the ruins of Machu Picchu, in Northern Peru‡ he found quite a large piece of tin, rolled up like a sandwich, supposed for making bronze. Three bronze axes obtained by him were analysed,§ and Mr. Mead gives the results, with further experiments in making similar axes. These showed that the forging could only be done at a temperature above 500° C., and the axes either forged hot or quenched suddenly and forged cold. If heated and allowed to cool slowly the alloy was extremely brittle and broke in pieces under the hammer.

The Museum contains two of the copper pipes described by Garcilaso as used with the Guayras or clay furnaces, 31 inches and 25 inches long respectively. They are made of rather thick sheet copper, and have a mouthpiece about 3½ inches wide at the rim. Mr. Mead notices especially the copper clamps used to fasten together the great stones at Tiahuanaco, none of which have any trace of tin, although quantities of bronze objects are found there. He says, with reference to Chile, that bronze objects are found in considerable numbers, and in various localities, but at present we have no knowledge of tin there, or only in very small quantities, and he asks: Did the prehistoric people work tin mines of which we are ignorant, or had they discovered copper ores containing as high a percentage of tin as the Cornwall coppers? Or did they obtain it from their northern neighbours? He devotes much attention to Professor Gowland's Presidential address before the Royal Anthropological Institute, "Copper and its Alloys in Prehistoric Times," and adds a bibliography.

A. C. BRETON.

* See MAN, 1906, 102, "Ancient Bronze in South America," with plate of the plaques, including the one in the Cambridge Museum.

† By Licenciado A. A. Barba, Madrid, 1639.

‡ *National Geographic Magazine*, Washington, February, 1915.

§ By Messrs. H. W. Foote and W. H. Buell, *American Journ. Sci.*, August 1912.

Jewellery.

Kunz.

Rings. By George Frederick Kunz. 9 × 6½. Pp. xviii + 381. With 290 Illustrations in colour, double tone, and line. J. B. Lippincott Co., Philadelphia and London, 1917. 28s. net. **16**

To his two books (*cf.* MAN, 1917, 49) on the curious beliefs attached to stones and to jewellery, of which stones so often form an essential part, Dr. Kunz has now added a volume devoted entirely to finger-rings, and treating of them in their archæological, historical, technological, artistic, and sentimental aspects. The new book, although containing a great deal of material, does not pretend to exhaust its subject, for it has had to be prepared primarily for a "popular" audience. But within its covers there is, both in text and in illustration, much that should interest the student in one branch or another of ethnology, either by serving directly as an example or as pointing to some unfamiliar source of possible examples. And it is pleasant to be able to record that the author has continued his practice of citing his authorities for his statements, since the value to the student of such a book as this depends largely on the opportunity it gives him of deciding as to the presumptive merit of his selections.

Few ethnologists can fail to be interested in the finger-ring in some one or more of its many-aspects, for it is an object which, as we know from surviving specimens—those made of the less perishable but often less easily workable materials—has served mankind through some thousands of years at least; one which to-day may still be found in use by peoples in almost every stage of culture, from that of the savage to that which we look upon as the highest of modern types; and one which no man or woman need be too poor to own or too rich to wear. It is, furthermore, one which has been used for the adornment of the living and of the dead, and one which has served in ritual, as a safeguard, as a means for the relief or the cure of maladies, as an implement, as the bearer of messages implied or written, and in various other ways, and for various other purposes, while probably more often than not it has been bound up intimately in some way with the individuality of the person possessing it. It would be tedious to point out the various passages of more or less interest to the ethnologist which are scattered through the pages of Chapters I and II, on "The Origin, Purposes, and Methods of Ring Wearing" and "Forms of Rings and the Materials of which they are Made," although special attention may be called to the well-illustrated description (pp. 22-30) of the making of silver jewellery by the Navajo and Pueblo Indians of New Mexico. Chapters V and VI, on "Betrothal Rings, Wedding Rings, and Love Tokens," and "The Religious Use of Rings," contain many passages interesting to the folklorist or the student of religious practices. Of most interest to these, however, are the two chapters (VII and VIII) devoted to "Magic and Talismanic Rings" and "Rings of Healing," in which the author has gathered together a considerable number of legends relating to the magical virtues of certain real or fabled rings, material dealing with various preservative (and a couple of divinatory) practices in which rings are employed, and much concerning rings—such as cramp-rings and rings set with certain substances or engraved with certain formulæ—to which curative powers have been attributed. The student of the development and of the application of design among non-European (or, too, among European) peoples will, amid the large number of rings pictured, find many to engage his attention.

The book, which has been otherwise excellently produced, being on good paper, with clear type and pictures, is marred slightly by a number of what are obviously printers' errors which have escaped the proof-reader's eye. A useful index of the material in it has been provided.

W. L. H.

Anthropology.**Spurrell.**

Modern Man and His Forerunners. By H. G. F. Spurrell, M.A., M.B., etc. **17**
 London: G. Bell and Sons, Ltd. 1917. Price 7s. 6d. net.

The first portion of this book deals with "The Problems of Anthropology," "The Zoological Position of Man," "Extinct Races and Species of Man and their Culture," and "The Growth of Human Powers and Numbers during the Neolithic Age." In the second portion rather greater space is given to the discussion of "The Origin, Growth, and Spread of Civilisation," and "Man at the Present Day."

As regards the first part, the author is dependent in the main upon well-known facts, but his method of treatment, and his use of his own observations on certain points, raises this part above the level of a compilation. Sufficient caution is not always shown with regard to matters still in debate, as, for example, in the acceptance of an extreme estimate of the antiquity of the modern type of man. It is also going beyond the ascertained facts to say that the Cro-Magnon men "were contemporaneous with the Neandertal men, the Grimaldi race, the Galley Hill, or Thames Valley race, all of whom reached Europe before them, and very likely other races as well." In a plate, under the description of the "Neanderthal type," are given the skulls of Trinil and La-Chapelle-aux-Saints, whilst those of Piltdown and Cro-Magnon are figured as representing the "modern type." There are other instances of statements which require qualification, and in which the author has failed to avoid the danger of popularising facts as well as treatment. There is, however, sufficient disagreement amongst authorities, on many points in connection with the history of early man, to make it a difficult matter to ascertain what is the balance of opinion. Dr. Spurrell has not entered on his task without giving attention to the facts, and thought to their interpretation; he has, in the main, appreciated the tendencies of modern investigation, and has avoided gross misconceptions such as are so frequent in compilations done in haste, and repented by the reader at leisure. A tendency to overshoot the evidence is pardonable, since it arises from a certain originality of outlook, and if the author's speculations are sometimes unsubstantial, they are not obtrusively picturesque.

The treatment of the origin, growth, and decay of civilisations is interesting, and the reader is led in a direction which may give him some surprises. Reasoning from well-known historical facts, and from evidence such as is supplied by the daily newspaper, the author arrives at conclusions which can scarcely be said to be in harmony with the spirit of the times, though it is chiefly in the drastic nature of his forecast that he goes beyond the limits of misgivings such as plague all of us at times. His argument is briefly this: An aristocracy of soldiers and hunters imposes its will on an unenterprising agricultural population and the great civilised nation is produced—"civilisation is, when analysed, found to be a system of slavery"; when the aristocracy loses its virility and the masses their submissiveness, decay sets in. To the author the rise of democracy is a sign and a portent, and, presumably, President Wilson's phrase an invocation of world-wide chaos. This proposition is open to attack from so many sides that the author needs more than all the support provided by history and contemporary politics. Whatever may have been the fate of democracies in the past, and however obvious their defects in the present, the view that they emerge as a sure sign of the coming disruption of the civilisation in which they prevail will fail to command acceptance, even amongst those who have few illusions as to the perils of democratic rule.

The causes of the decline and fall of States are so varied and so complex that to put forward one phase in their evolution as destined to be always prophetic of the end, is to minimise the fact that the present and future of a State, or of a civilisation, are built on its own past. If "the basic weakness in civilisation lies in

"the deeply-rooted predatory instinct in human nature," leading in democracies to place-hunting, and a competition amongst demagogues for the favour of the mob, we may still hope that this weakness can be overcome. Much of the source of it will be removed when there has been a toning down of the more glaring contrasts between inherited luxury and inherited squalor. Democracy has failed because it has had to build on a crazy foundation thrown together by a selfish aristocracy or plutocracy, and there is hope for future democracies which may succeed in replacing this jerry-building under conditions which enable the work to be done without collapse of the whole structure of government. Nor need we anticipate that in the ferment of the people it will always be the dregs that will come to the top. It may be, as Dr. Spurrell believes, that the present civilisation, world-wide though it is, will give place, as others have done, to a phase of decay and disorganisation, but to argue that this is inevitable shows a lack of confidence in man's adaptability which is far from being justified by the record of his past outlined by Dr. Spurrell, not without enthusiasm, in the book under review. H. S. H.

America: Ethnology.

Proceedings of the Nineteenth International Congress of Americanists. 18
Held at Washington, December 27-31, 1915. Edited by F. W. Hodge.
Pp. lviii + 649. Washington: 1917.

This thick volume, a monument of editorial skill and patience, contains much interesting material relating to the archaeology and ethnology of the Americas. Detailed criticism is impossible here, for ninety-five papers were presented to the congress, consisting mainly of first-hand data collected by the authors, given in simple language and admirably illustrated. In fact, this congress justifies its existence by the illustrations in the *Proceedings*. There is a series of "Food Plants of Ancient America," collected by W. E. Safford, chiefly from Peruvian tombs, with their representations in the pottery. Eight distinct varieties of beans were found by the author in one prehistoric grave. Excellent descriptions of the antiquities of Tennessee (two by Dr. G. G. MacCurdy and one by W. E. Myer), show, in the amazing profusion of objects found there, in the many kinds of stone implements and arrowpoints, and the engraved discs of shell, what refined skill the inhabitants had achieved.

The ancient shell-heaps of the coasts of America urgently need co-ordinated exploration before they are destroyed, with all their contents.* In this volume there are detached notes on some of them; in northern Nova Scotia (Harlan Smith) on Long Island and Staten Island (A. Skinner), and by A. W. Butler on those of part of the Atlantic coast of Florida, where he says that the Oak Hill Mound, 20 feet high, covering 4 acres of ground, and practically undisturbed, has been sold to the country for road-making (those near Vancouver, B.C., were similarly destroyed). Valuable information could be obtained by study of the shell-heaps round the whole coasts of South America.

Notwithstanding the supposed troubles in Mexico, the two Government delegates attended the congress, and Señor M. Gamio, Inspector of Monuments, described recent excavations near the site of the great temple. His paper contains a useful plan of the plaza and cathedral, showing the positions where the great sculptured stones were found. Stone skulls were fastened to the walls of one building and may have caused Cortez' companions to think them real. The present Government invites the co-operation of foreign archaeologists in research.

* The archaeological department of the Geological Survey of Canada has been making a list of the shell-heaps of Canada, compiling what is known about their size and general appearance, with references to the literature describing them and the specimens found in each.

Amongst several papers on the Maya region, Mr. S. Morley's on the *hotun* is the most important. He has given this name to the period of 1,800 days (or five times the year's reckoning of 360), which he has discovered to be specially observed by the later monuments at Quirigua and others of the ancient cities, where stele were erected at the end of each of these periods, or dated lintels were placed. His plan of Quirigua shows the sequence of dated monuments there.

Mr. F. C. Speck's *Medicine Practices of the North-Eastern Algonquians* contains some carefully gathered information about the Indian mind and methods, the mixture of superstition with a sensible application of well-tried remedies. Dr. T. Gann's account of the rain ceremony among the Maya in British Honduras has a ritual almost identical with certain ancient religious rites of the Maya, even the names of the gods being retained in the invocations. Twenty years ago a similar ceremony for rain was still performed in a remote part of south-western Mexico.

W. B. Douglass describes enclosures and circles of unhewn stones in New Mexico, with pictographs, in connection with Tewa shrines, and has excellent plans and photographs. A remarkable ancient site in Porto Rico, photographed and excavated by J. Alden Mason, appears to be the most important yet found in the West Indies, and to merit being called megalithic. In addition to six ball courts, there was a square plaza with a boundary of limestone slabs on one side, and on the other a line of immense basaltic boulders. All these had incised pictographs, now much eroded.

Dr. Hiram Bingham's thoughtful paper on "The Inca Peoples," and that by Dr. A. L. Kroeber on "The Tribes of the Pacific Coast," stand out as true and well written statements. Dr. Kroeber notes the importance of wealth in the culture of the Pacific coast. "A poor chief is as unthinkable to the Indian of California as to him of Puget Sound." The man of influence and position is not the man of record in war, but of property.

In the ten papers on "Physical Anthropology" there are interesting data on the present inhabitants of the United States. Dr. A. Hrdlicka discusses "The Genesis of the American Indian," and analyses the physical conditions of "Old White Americans" (of three generations), in whom he fails to find a tendency to develop into a new race. D. Folkmar, in a "Census of Immigrant Stocks," gives the number of foreign-born Germans as 2,759,032, and the total of German stock, 8,817,271.

The British Consul in Philadelphia, in 1915, said that there were over 40,000 British subjects in that city, most of them employed in factories. The recent keeping of the Day of Atonement brought out the fact that there are 50,000 Jews in Toronto. In the Canadian province of Saskatchewan Austro-Germans form 40 per cent. of the population. The future North American will be a composite of European races. Condition of the permanent teeth in more than 2,000 school children of different races is recorded by R. B. Bean, but he does not give their place of residence. Climate and diet affect the teeth very considerably.

A few words must be said about the congress itself, because the Royal Anthropological Institute was sponsor to the previous congress in London, 1912, and should therefore be consulted when it becomes possible to hold another meeting in Europe. Owing to the outbreak of war the Washington meeting, arranged for October, 1914 (when a number of English anthropologists were to attend), was postponed. Then, seeing that there was little prospect of securing delegates from Europe for a long period, it was determined to convene the congress for December 27th-31st, 1915, when the second Pan-American Scientific Congress would also meet in Washington with several learned societies of the United States. Circulars to this effect were sent by the organising committee to all the members, and a great majority agreed.

Dr. C. D. Walcott, secretary of the Smithsonian Institution, presided at the opening meeting, and representatives of thirteen foreign countries and of the London Congress were present and spoke, so that the international character was well maintained, and some joint sessions with the other societies were advantageous to all. The chairman (Dr. W. H. Holmes), the secretary (Dr. A. Hrdlicka), and the other local officials were indefatigable in attention, and the new National Museum proved an ideal meeting place.

According to the rules of the congress, it should meet every two years, "and, if possible, alternately in the Old and New World." Holland had been designated for 1916, but was no longer possible. A warm invitation to Rio de Janeiro, from the six principal Brazilian learned institutions, brought by Dr. A. Simoens da Silva (who represented twenty-six Brazilian societies), was therefore accepted for June, 1918. This had been provisionally settled at the Vienna meeting in 1908, at the request of the Brazilian delegates, but may now have to be postponed. It is to be hoped that anthropologists may have the opportunity to visit Brazil under the pleasant condition of Government patronage. The country must be full of unexplored antiquities, and Dr. Simoens gave an account of the occurrence of nephrite *in situ* at Baetinga, in the province of Bahia. The museums at Rio, Para, and S. Paulo have fine collections.

The Congress of Americanists brings together the workers in the many different fields of Anthropology in the New World, whose explorations add materially to our knowledge of that continent.

A. C. BRETON.

Anthropology.

Elliot Smith.

Primitive Man. G. Elliot Smith, F.R.S. (From the *Proceedings of the British Academy*, Vol. VII.) London: Oxford University Press. Price, 19 3s. 6d. net.

This paper, read before the British Academy in November, 1916, contains a brief account of the fossil forms of man, and of the succession of culture stages in Europe and elsewhere, leading up to what the author describes as "a crude and tentative sketch of the mode of origin and development of ideas that lie at the very root of all human beliefs."

The paper is interesting in manner as well as in matter, both being characteristic of the author. Beginning with a protest against the misuse of the term "prehistoric" and "prehistory," short descriptions of Neandertal man, Pithecanthropus, and Eoanthropus are given, and the author expresses his agreement with those who regard Neandertal man as a separate species, Pithecanthropus as a lowly member of the human family, and Heidelberg man as probably worthy of being placed in a special genus (*Paleanthropus*). He emphasizes the break in continuity marked by the change from the Mousterian to the Aurignacian phases, and he regards the Aurignacian, the Solutrian, and the Madelainean cultures as indicating successive waves of immigration of representatives of *Homo sapiens*. He adopts the view that the Solutrian methods of stone-working spread to the uttermost parts of the earth, and that the Neolithic methods show the influence of Solutrian technique, exerted before the Neolithic culture found its way into Europe. Some attention is given to the problems presented by the peopling of Australia and America, and the opportunity is taken to protest against the application of the word Caucasian to the Australian aborigines. Professor Elliot Smith takes the view that the idea of domestication of animals spread from one centre, and that it is more probable that totemism arose from domestication, than the reverse. Stress is laid on the significance of agriculture in the impetus it gave to the development of scientific knowledge, to the founding of civilisations, and in its relation to the origin of myths and beliefs.

Professor Elliot Smith's views, which find a summary exposition in the present paper, are too well known to readers of MAN to require any detailed discussion here. It will be agreed that he is doing work of the greatest value to Ethnology in his insistence on the importance of migration and contact in the evolution of culture, but there may be some suspicion that he weakens his case by confronting what he has called a dogma with what sometimes seems perilously like another one. Ethnologists appear to be given the alternative of swallowing the latter, on penalty of being found guilty of harbouring the former. The dilemma is mediæval rather than imperative. The evolutionary "school" is not so far removed from the historical as Professor Elliot Smith seems to believe, and if it is apt to show a complacent tendency to assume the occurrence of independent evolution, this does not exclude a readiness to accept adequate proofs of the transmission of arts and customs. It might even be argued that those who assert the tendency to progress to have been so restricted that all similarities—or perhaps it is only nearly all—are due to direct or indirect transmission, are less scientific in their attitude than are those who believe that parallels and coincidences occur. But it is acknowledged that what Professor Elliot Smith sometimes tempts us to regard as a dogma is in reality a method of attack which is destined to have important dynamic effects in Ethnology in the near future; if the pendulum swings too far now it can be trusted to return in due course.

It is no new thing for the enthusiast to stimulate those he antagonises, as well as those who regard him as a prophet, and intolerance of "fashionable doctrines" is the mark of the reformer. For these reasons orthodox ethnologists—and there must be some—will not find it difficult to accept from Professor Elliot Smith what sometimes seems like harsh criticism, and they will at least be in sympathy with his passing reference to "those unconscious phenomena that warp the judgment of all "men, however conscientious."

H. S. H.

ANTHROPOLOGICAL NOTES.

ACCESSION TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL
INSTITUTE.

20

(Donor indicated in parentheses.)

Hampi Ruins Described and Illustrated. By A. H. Longhurst. $9\frac{3}{4} \times 6\frac{1}{4}$. 144 pp. 69 Figs. and Plan. Government Press, Madras. 4s. 6d. (The Superintendent.)

Antiquities of British Honduras.

Dr. T. Gann, of Belize, continues his investigations of the antiquities of British Honduras, and has recently made some very interesting finds in the north of the colony. They go to show that stucco-covered Hotun stones (Hotun is Mr. S. G. Morley's name for the glyph that records the five-year period of the Maya), with devices painted on them supposed to have gone out of use before or soon after the Spanish conquest, were being erected in that neighbourhood, possibly as late as a century, and certainly not more than a century-and-a-half ago.

Dr. Gann is contributing a bulletin to the Smithsonian Institution publication, and is also doing some excavation for Mr. G. Heye's Museum of the American Indian at New York.

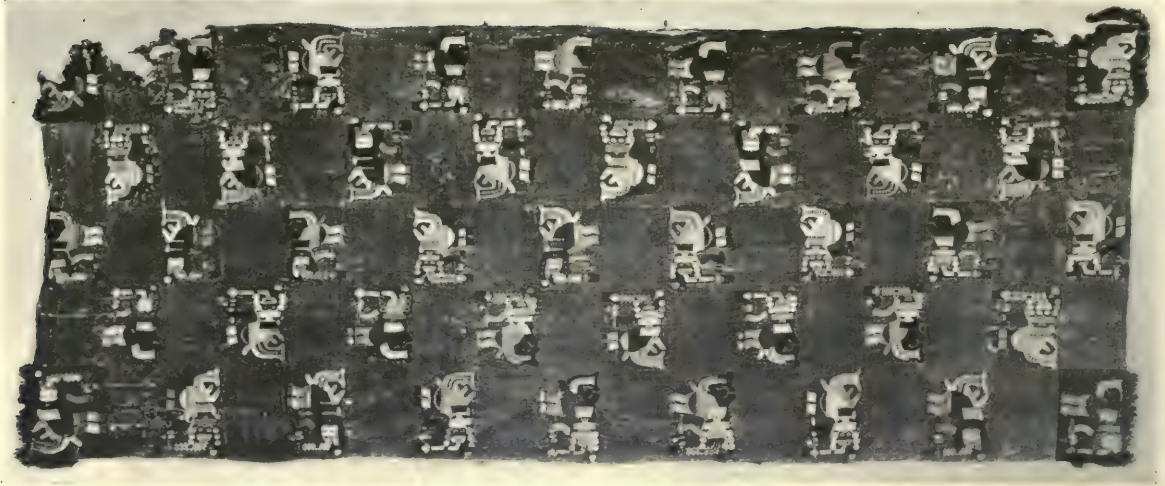


Photo R. Ontario Museum.

FIG. 1.—PRE-INCA TAPESTRY FROM ICA DESERT, SOUTHERN PERU, SIZE 8' 9" BY 3' 6".
RED GROUND WITH A RECTANGLE OF BLACK, AND FRINGED AT EACH CORNER.



Photo R. Ontario Museum.

FIG. 2.—PRE-INCA TAPESTRY FROM ICA DESERT, SOUTHERN PERU, SIZE 8' 8" BY 3' 2".
BLACK GROUND WITH A FRINGED RED RECTANGLE AT EACH CORNER.

PERUVIAN TAPESTRIES AT TORONTO.

ORIGINAL ARTICLES.

Peru.

With Plate C.

Breton.

Peruvian Tapestries at Toronto. *By A. C. Breton.*

22

The Royal Ontario Museum at Toronto, although only opened in March, 1914, contains a number of unique treasures already. There is the sacred hanging or curtain, from Gondar, taken in the Abyssinian Expedition of 1867, and said to be 800 years old. It has a peculiar design, worked over in silk cord with rich and archaic colours. The director, Mr. C. Currelly, while in Egypt, collected a quantity of palæolithic implements in the Libyan desert, and undertook the making of a reproduction of the great relief of the Punt Expedition in the temple at Deir el Bahri, Thebes. Each stone was moulded separately by a special process with wax and tinfoil, and then coloured from the original by Mr. W. Tyndale and another artist. The result is a perfect facsimile, unattainable by an ordinary cast, where the carving has the extreme delicacy of some of these Egyptian reliefs, and was well worth the cost and trouble. As an example of the highest art it will be most valuable to Canada.

Early Chinese bronzes and small painted clay figures from ancient Chinese graves, beautiful Persian pottery, and a fine Eskimo collection, are conspicuous among many interesting things. Two dark green polished stone axes, although found in China, are said to be distinctly of the New Guinea type, both in form and material.

The remarkably fine Ica tapestries illustrated in the Plate were obtained by Dr. J. Tello during his expedition to Southern Peru

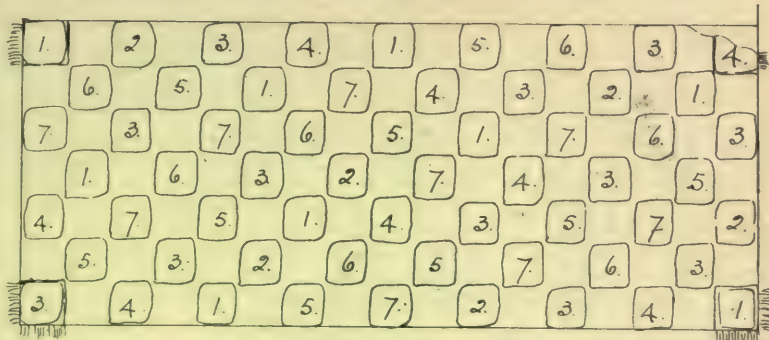


FIG. 3.—DIAGRAM OF COLOUR ARRANGEMENT OF ICA TAPESTRY WITH CONDOR FIGURES.

in 1915. He reported sad destruction of the contents of ancient cemeteries there owing to the impossibility of supervision. To Dr. Max Uhle belongs the credit of the discovery of the Ica and Nazca pre-Inca culture, in a land that has long been desert. The specimens of painted pottery brought by him to the Museum at Lima, and others since acquired by the British Museum and the Museum of Natural History in New York, are unsurpassed in perfection of technique.

These two pieces of tapestry appear to have been a pair, being about the same size. They may have formed the skirts of two priestesses, arranged like those of Mexican women, the piece of stuff folded in pleats at the waist and held together by a long woven band, the ends overlapping in front. The width would be suitable for the length of a skirt, the pleats rising above the waist. This supposition seems preferable to the notion that they were shawls.* The one with human figures has a red ground with a black rectangle at each corner. The other has a black ground with red rectangles at the corners.

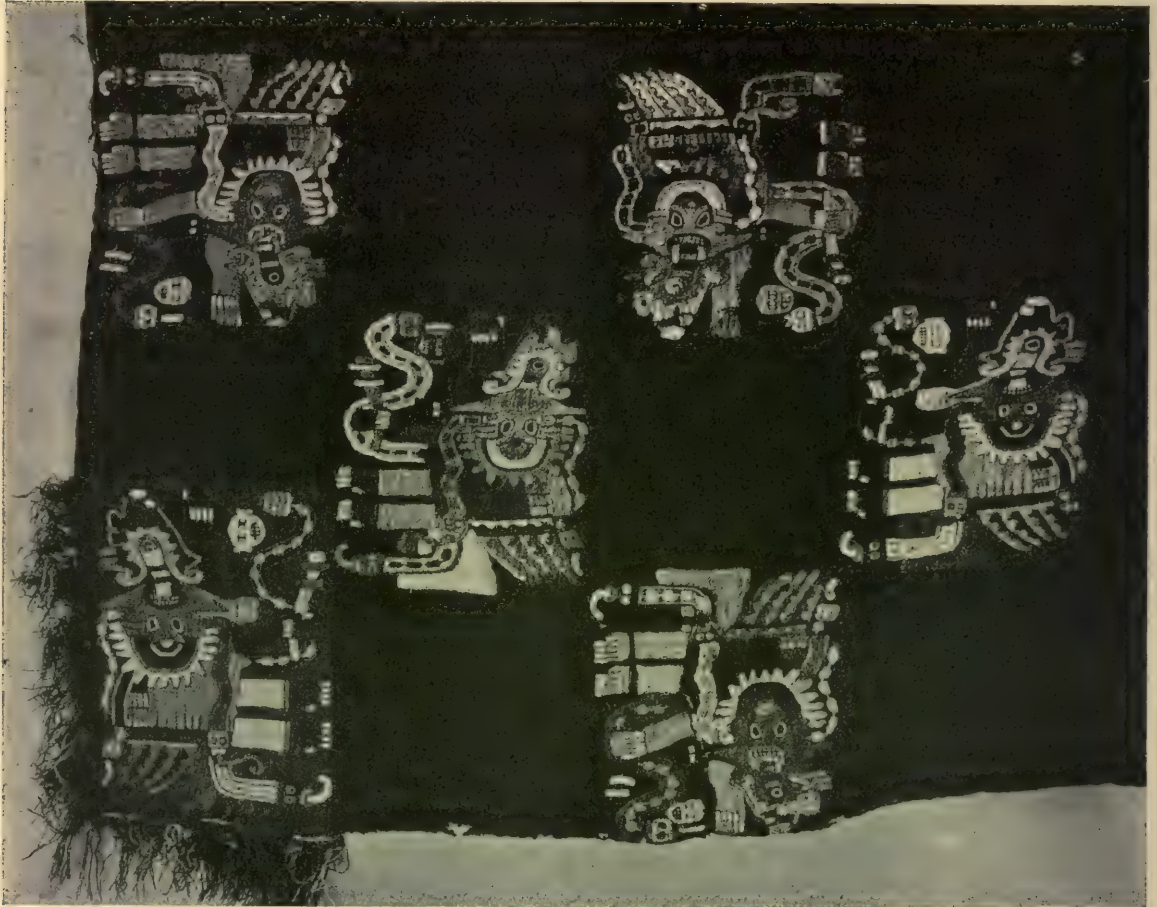
Mr. Currelly has kindly supplied the following information :—

The four tapestries (two are in Boston, at the Fine Art Museum) were found in a square tomb about twelve feet across and moderately deep. I believe nothing else but the body was in the

* The over-garment was usually a kind of poncho with openings for head and arms.

tomb. The tapestries are extraordinarily beautiful in colour. The following colours were used: Two shades of blue, one very pale, the other a kind of periwinkle shade; two shades of yellow, two of brown, olive green, a light pinkish red, crimson red, dark reddish purple, and black. The material would stand very little wear, as the fibre has become short and breaks easily. All the colours were used in different combinations on each figure.

Mr. Currelly has had diagrams made to show the positions of figures in which the main colours are identical. Without any definite sequence, there is an evident intention to have alternate figures alike diagonally, on the piece with the condors, whilst there are also sequences in the horizontal rows. This piece has seven combinations of colours, whilst the other has nine, with further minor differences. Except in a few cases, the head-dresses of the human figures are in two colours,



[Photo by Royal Ontario Museum]

FIG. 4.—DETAILS OF ICA TAPESTRY WITH CONDOR FIGURES OF FIFTH, SIXTH, AND SEVENTH ROWS.

the upstanding feathers the same as the circular side ornaments, and the centres of the latter the same colour as the cross-pieces (conventionalised winged faces?).

In studying the designs it will be found that in each case they begin at the top right-hand corner and proceed in *boustrophedon* fashion, the figures following each other along the rows horizontally, floating downwards until they end with the last figure, turning upwards at the bottom left-hand corner. It is necessary to look at each row so that the heads face downwards, and they must have been worked in that position, turning the material accordingly. In the condor piece the end figures

(left hand) of the first, third, and fifth rows are twisted round towards the next row below. (See Fig. 4.)

The treatment of the sixty crested condor figures is somewhat similar to that of the figures on the Puerta del Sol at Tiahuanaco, but in one hand a human head is held by the hair, in the other is probably a ceremonial dance rattle (Note 1). They have elaborate collars, from which hang the bags of coca as one sees on the mummies, and small snakes twist about them. The forty-three human figures on the other tapestry also hold rattles (usually in the left hand like dancers) and a small head hangs below the other hand. The fish-like fins and tail of these figures could be compared with some in the sculptures and paintings at Chichen Itza, Yucatan, where the feathered serpent changes in convention to fins (Note 2).

The Royal Ontario Museum is at present only one-sixth in size of what is planned. The building cost £70,000, and the maintenance cost £7,000 a year, half contributed by the University of Toronto and half by the Provincial Government. It contains five complete museums, each with a director paid by the University; Economic Geology (so important in Canada, where new minerals are being constantly found), Biology, Palæontology, Mineralogy, and Archæology, the last at present the most important. Practically every object in the museum, or the money that obtained it, has been presented, mainly from Toronto, but also with the aid of some extremely generous English friends, often at very high cost. It will become an important factor in the general education of the people of Ontario, the objects being chosen chiefly as examples of art. This is necessary in a recently populated country where the aboriginal culture has been forgotten. The museums at Ottawa and New York are now endeavouring to interest manufacturers and others in the ancient native designs, and to promote their use for various purposes.

A. C. BRETON.

NOTES.

NOTE 1.—At Tiahuanaco the condor figures (the middle row) on either side of the central deity look upwards towards him, whilst in the tapestry they are looking down, and are only clear when seen in that position. Many details are not visible in the photographs.

NOTE 2.—Miss Sarah Flint, of the Boston Fine Arts Museum, sent photographs of the Ica tapestries there, bought from Dr. Tello, partly illustrated in the *Museum Bulletin* of October, 1916. The four principal pieces have the same brilliant colouring and are similar in size and arrangement of design to those of Toronto, especially those numbered 16.31 and 16.33, which correspond closely in style. Though no definite account of provenance was preserved, these are probably the other two of the four from one tomb mentioned by Mr. Currelly. Both have five rows of downward-floating figures (forty-eight in 16.31, fifty-three in 16.33), with alternate blank squares forming a sort of check pattern, and arranged so that three rows have the heads downward, whilst the other two rows must be reversed in order to be seen in that position, as intended. Like those described above, the series appear to begin at the upper right-hand corner and to end at the lower left-hand corner. In 16.31 the figures have in one hand what seems to be a spear-thrower, and the other hand holds a human head by the hair. Those of 16.33 have a feathered wing, a bird's tail, hands instead of feet, and carry a rattle and spear-thrower.

A third piece, 16.34, has ten rows of winged human figures, all upstanding, with the same headdresses as Fig. 1, and hold votive heads. The fourth piece has seven rows, with sixty-seven figures of a little man in a poncho holding a long stick and standing upright, the alternate rows (horizontally) being head downwards. Some of the faces (in front view) have the bird design round the eyes like those of the Puerta

del Sol. Allowing for the difference between a much conventionalised sculpture and imaginative feminine needlework, a connection may be traced between the figures of the tapestries and the Puerta del Sol, where the small human figures in the border carry votive heads.

Zululand: Skin-dressing.

Vaughan-Kirby.

Skin Dressing: A Description of the Process of Converting the Raw Hides of Game or Domestic Cattle into Articles of Native Wearing Apparel. By F. Vaughan-Kirby, Game Conservator, Nongoma, Zululand, January 24, 1914. **23**

The following description of the Zulu method of skin dressing, by Mr. F. Vaughan-Kirby, was sent me by the Natal Government early in 1914, in answer to my request for information on the subject, through the kindness of Mr. J. R. Boosé, C.M.G., the late Secretary of the Royal Colonial Institute. At some of the informal conferences of Northern Museum Curators there had been



[From a photograph by F. Vaughan-Kirby.]

NATIVES USING THE I-ZEMBE.

expressions of opinion on the part of some members that pigmy flints had been used in pre-historic times for the purposes of skin dressing, an opinion which I and others did not hold. As a means of throwing light on the point I tried to get information as to the methods of skin dressing followed by present-day unrisen peoples, and as Livingstone's short account (*Missionary Travels*, London, 1857, p. 193) gave some clue, I endeavoured to follow it up by obtaining more complete information. Mr. Vaughan-Kirby has very evidently taken great pains in collecting the particulars and noting them down, and as a result we have for the first time a very complete description of Zulu soft leather manufacture. The use of the slain animals' brains as an aid in softening the skin is a point of resemblance with the method used by the North American Indians when engaged on a like job, otherwise, except the stretching of the skin, which it would be difficult to encompass in any other way, the methods adopted by

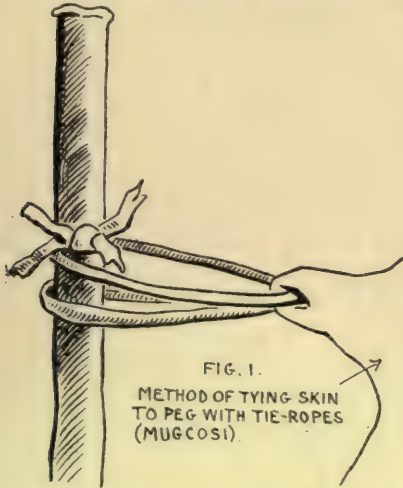
the two peoples are quite distinct. For purposes of comparison I include, among the illustrations, one of the Mokololo tools brought home by Livingstone and now in the British Museum. It does not look likely that the pigmy flints could have served the same purpose as that of the Zulu skin-dressing tools.

H. LING ROTH.

In the present instance—of which the following is a description—the hide selected was that of a three-parts grown “blue” wildebeest (*Connochoetes taurinus*).

The hide was first soaked in fresh water to soften it, the time of immersion being from 10 a.m. on a Sunday morning till 8 a.m. on the Tuesday = 46 hours.

Upon its removal from the water the hide was “pegged out” for the preliminary scraping, with the hair side down. The plan of pegging out is dissimilar to that adopted when it is merely intended to dry the skin. In the latter case holes are cut at intervals round the edge of the hide, into which wooden pegs are inserted and then driven into the ground, the skin being raised about 4 inches from the earth. For the present purpose the holes were cut at intervals round the edge, and into these tie-ropes (made of stripped bark of certain trees, and called *mugcosi*) were inserted, by means of which the hide was drawn out tightly to



long, stout wooden pegs driven firmly into the ground, above which the skin was raised about 18 inches (Fig. 1).

The object of the tie-ropes is to enable the hide to be kept tightly stretched; as the skin is pared down and becomes thinner it stretches, and when this occurs the tie-ropes are tightened up.

The hide having been properly pegged out, work was commenced upon the upper side (actually the inside of the skin) with sharp iron instruments known as 'mazembe'. The edge of this instrument (Figs. 2 and 3) is kept very keen and never allowed to dull; a metal pin, 8 inches in length, being used for this purpose (Fig. 4).

To prevent chafing of the hands when using the 'mazembe', the latter is bound round with grass-rope, soft strips of hide, or any similar substance. The operation of scraping is, in the vernacular, known as *uku pala* (to scrape).

Throughout this operation the skin was kept very damp, water being sprinkled upon it at frequent intervals. The *pala*-ing occupied from 9 a.m. till noon, when the skin was removed and returned to the water till 1 p.m., when it was again

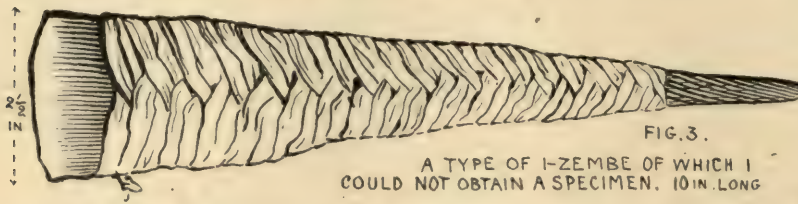


FIG. 2. I-ZEMBE. 8 1/2 IN. LONG

taken out and re-pegged. Scraping was then renewed, but this time other tools were brought into use, and the 'mazembe' laid aside. These are known as 'zi-ndhlwandlwa', and vary considerably in their construction. A specimen of each kind (Figs. 5 and 6)* used on the present occasion was secured by me, and will be found

* Specimens of the instruments as illustrated by Figs. 2, 5, and 6, together with specimens of the skin in process of dressing and finished, are exhibited in Bankfield Museum. For these we have to thank Mr. Vaughan-Kirby.—H. L. R.

in the collection. It is only necessary to say that the one made by driving nails through a rounded block of wood (Fig. 6) is the least satisfactory of the two. Only two kinds of wood lend themselves to the proper construction of the block, viz.,

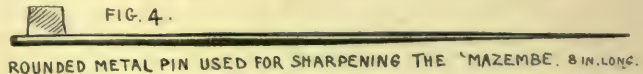


that of the 'mGanu tree (from the acid fruit of which a deliciously refreshing but highly-intoxi-

cating drink is brewed), and of 'mKiwane, the wild fig. These woods shrink upon the metal and hold the nails firmly in position, which no other local wood will do. The specimen procured is of 'mGanu wood. These 'zi-ndhlwandlwa are used upon the surface with a series of criss-cross strokes, that is, in such a manner as to produce (temporary) marks upon the cuticle resembling "cross-hatching" in pencil drawing.

About an hour after these 'zi-ndhlwandlwa were brought into use a distinct nap (Zulu 'mSendo) became visible on the skin, and at once other instruments (as I must call them) were taken up and worked in conjunction with the 'zi-ndhlwandlwa. These simple but highly effective instruments were none other than the broad leaves of the 'mHlaba (a species of aloe or cactus bearing brilliant orange-red flowers, and whose leaves are burnt in the fire, the ash being then finely powdered and used in the preparation of the native *ugwai* or snuff). The individual leaves used for the purpose of raising a

nap on skins is styled *iHlaba*. The leaf is scored slightly down the mid-rib,



then doubled over, tied with a piece of grass rope, and the cruel hooked thorns removed from the portion held in the hand. (I have not secured a leaf of this aloe, but will endeavour to do so later on.) The method of using the *iHlaba* is as follows: The leaf is cut about 18 inches in length, and is held in either hand at the base, the pointed end away from the operator and the thorns thus turned towards the point. The instrument is then worked forwards and backwards, the effective stroke being the forward one (away from the operator), as in the draw-back it is slightly raised from the surface of the skin.

It may be mentioned here that in the days prior to the introduction of fencing wire, nails, &c. into the country the entire work of the 'zi-ndhlwandlwa was performed with these 'mHlaba leaves, just as the work of the 'mazembe was performed with iron instruments of native manufacture—now unprocurable.

'Zi-ndhlwandlwa and *iHlaba* were now plied vigorously until 4 p.m., the skin being constantly moistened throughout the whole period, and then it was removed

from the pegs and returned to the river for the night.

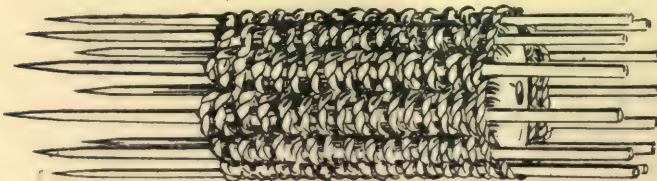


FIG. 5. I-ZIDHLWADHLA, No. 1. 8 IN. LONG

from the following morning work was resumed, the skin being re-pegged. The *zi-ndhlwandlwa* and *iHlaba* were again requisitioned, and for three hours the work progressed steadily. A critical stage was now entered upon, as the use of the 'zi-ndhlwandlwa had to be discontinued at a certain point, and

a number of tests were made for the purpose of ascertaining if that point had been reached. The principal and simplest test appeared to be running the fingers over the surface of the skin with the hands held as in piano playing, when the touch conveyed the desired information to the operator. Another plan was to feel the surface with four fingers of one hand, and passing the other hand underneath the skin with the fingers in juxtaposition to those of the other hand, to test the skin between them. A third test was made by running a stout needle into the skin from above, the ease or otherwise with which it entered forming the desired test.

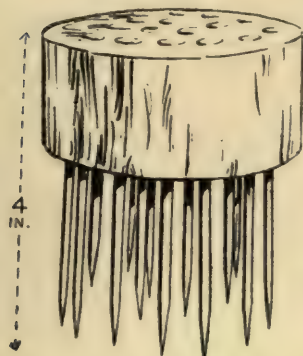


FIG. 6. I-ZIDHLWADHLA No. 2

It was considered well to discard the 'zi-ndhlwadhla', and from this time the *iHlaba* alone were used. Their harsh, powerful thorns very soon raised a nap on the surface, and after two hours more of vigorous work the skin was left an hour. Resuming work at 2 p.m. the scraping process was declared completed at 3.30 p.m.

A quantity of clean water was then thrown over the surface of the skin, and by using the backs of sheath-knives, pieces of plank, etc., it was squeezed almost dry.

The skin then presented the appearance of a white blanket with a close, short nap; upon parting this nap with the fingers the skin below was seen to be greyish-blue in colour, owing to the roots of the hair showing through.

The skin was then treated with the following: 2 lbs. maize meal mixed with cold water to the consistency of thin gruel. This was rubbed lightly over the dressed surface for fifteen minutes, and the whole was left dry. The object attained was the "clearing" of the '*msendo* (nap), and getting rid of all tendency to *bunch up*. That night the skin was placed in a native hut, and early next morning again put out to dry. This being accomplished, the skin was once more drawn out of the pegs, but this time with the *hair side uppermost*, and the operators, taking their '*mazembe* in hand, proceeded to scrape the hair off completely.

Meanwhile the material for softening the skin (or, as it may now be termed, the '*sidwaba* = native woman's petticoat) was being prepared.

Three substances are used for this purpose, viz. :—

1. The kernels of the nuts contained in the very astringent plums known as (*a'*)*matunduluku*.^{*} These grow upon a bushy shrub (the *umtunduluku*) found in the bush country (not on the higher and more open hills), and which attains a height of about 15 feet. Specimens are forwarded of these nuts, the kernels of which are of a very oily nature. This substance produces the cleanest results as well as the most odourless; it is usually the most easily obtainable, and therefore most frequently used.

2. The kernels of the nuts of the castor oil plant, *inhlakuva*, which of course is well known. It produces dirty results, and an evil odour and of great permanency, but renders the



FIG. 7.—MAKOLOLO SKIN DRESSING TOOL IN THE BRITISH MUSEUM.

From "Local Prehistoric Implements." By H. P. Kendall and H. Ling Roth. *Bankside Museum Notes*, 1st Series, No. 12, 1912, p. 15.

^{*} The nut has been identified at the Royal Botantic Gardens, Kew, as the fruit of *Ximenia caffra*.—H. L. R.

material extremely soft. It is, I fancy, preferred by the native women who wear the (i)'*zidwaba*, and who are in no way inconvenienced by the offensive smell.

3. The brains of cattle, goats, or wild game. This produces fairly clean results and not *too* offensive an odour after about six months' use, but during that period of probation the garment is about as evil a thing as can well be imagined.

The '*matunduluku* nuts were used on the present occasion. About two pints of the shelled kernels were ground up into a thick paste upon a native grindstone, this paste being then mixed into about three pints of water "just off the boil," when a thin brownish-coloured gruel, extremely oily and soft to the touch, resulted.

The '*sidwaba* was now placed on the grass (after the dried maize-meal had been shaken off) prepared side up, and the hot liquid poured over it, the latter being thoroughly but lightly rubbed into the nap for ten minutes. This done the '*sidwaba* was rolled up *very* tightly, and green damp leaves of any tree or shrub bound round it, and the whole enclosed tightly in a piece of sacking. Thus it might remain indefinitely, but of *necessity* for only as long as was required to enable the preparation to soak in thoroughly. In the present instance it was removed 48 hours later, when the final operation of *shuka-ing* (rubbing soft) was commenced. This is done exactly in the same way as any ordinary skin is *shuka-ed*, the operator sitting down in the shade, and rubbing and twisting one part of the skin, held in one hand, upon another portion held in the other hand. This work was done at odd times, but when put away was always similarly rolled up, bound in leaves, and enclosed in sacking.

Altogether the *shuka-ing* took about eight hours to complete.

On examining the dressed piece it will probably be seen that the nap is lying pressed down. The garment should be held up between two people, one of whom with a *thin* supple switch strikes the surface sharply at different points, when the nap at once rises. As much of the length of the switch as possible should be permitted to fall upon the surface, not merely a few inches of the point.

It only remains to say that the skins of male animals produce the longest nap or '*msendo*, and those of full grown animals a longer nap than those of younger animals.

F. VAUGHAN-KIRBY.

Papua: Ethnography.

Murray: Ray.

The People and Language between the Fly and Strickland Rivers, Papua. By the Hon. J. W. P. Murray, Lieutenant-Governor of Papua. Communicated, with Notes, by S. H. Ray.

24

His Excellency the Hon. J. W. P. Murray, Lieutenant-Governor of Papua, has very kindly sent me a vocabulary, collected by himself and the resident magistrate for the Western Division (Mr. S. D. Burrows), during a visit to Lake Murray, a large swampy tract which lies in the angle formed by the junction of the Fly River with the Strickland, in Western Papua, about 7° S. lat. and 141° 30' E. long.

The lake is reached by ascending the Herbert River, a tributary of the Strickland, for about 18 miles. It is a large sheet of water, dotted with innumerable islands. Round the banks and islands a grass is growing which seems to be extending into the lake, and has already covered a large area of it. This is, in parts, strong enough to support a man walking on it. The natives use a paddle with a broad, round, flat blade, which enables them to press down the grass and pass over it in their canoes. The clear water is about 25 miles long, and at the widest about 4 or 5 miles. A depth of 5 fathoms is not uncommon.

Lake Murray was discovered by Messrs. Massy-Baker and Burrows in June

1913. They visited a village on the lake called Mova, but this was found to be deserted when Mr. Murray visited it in April 1914. From Mr. Murray's interesting account in the *Annual Report* for the year 1913-14, I extract and condense the following notice of the people in this region.

Three villages (unnamed*) were visited. The first of these (village A) was about 4 miles inland from the east bank of the Fly River, and about 300 miles from the mouth. The second (village B) was on the west bank of the Fly, about 100 miles further on. These two are called by Mr. Murray the villages of the 1st April and 4th April respectively. The third village was on Lake Murray, about 30 or 40 miles distant from village A.

Natives seen on the banks of the rivers and in the three villages all appeared to be of the same type, and to resemble the natives of the Morehead River and the extreme west more than any others with whom Mr. Murray was acquainted. "They seemed, however, to be very much lighter in colour than the Morehead people, and where the skin could be seen (it was generally plastered with mud or clay) it seemed to be very much fairer than that of our Kiwai police—fairer even than that of the Motu crew." The natives of village B "did not appear to colour themselves at all—a marked contrast to the people lower down." In the other villages the people plastered themselves with clay—red, yellow, brown—and in both of them a man was seen covered from head to foot with white colouring matter.

The hair in all the villages was, "generally speaking, string-dressed in a similar way, plaited into long ringlets, sometimes with cane or bark. Some of the people seen on the Strickland had caps of plaited string or grass," but these were not seen in the villages.

"Near the lake some of the men were shaved on the upper and lower lip, but wore flowing whiskers, with which their beards, divided in the centre, formed part.

"The dress of the people was not elaborate, and consisted almost entirely of a nut. The nut was worn on the *glans penis*, and held in position by strings or threads, which were attached sometimes to a belt, sometimes to the waist of the wearer." Mr. Murray "saw only one man (in village B) wearing a shell, though shells were almost universally worn at village A, and were common on Lake Murray, though on Lake Murray many wore nuts. When the shell is worn, the penis is placed inside it, the back or top of the shell is placed outwards, and the whole is maintained (as in the case of the nut) in a more or less upright position." He saw "no man in this village (*i.e.*, B) who wore anything in the nature of a *rami*† or a grass ornament, or covering at the waist, higher in front or behind." Glimpses of the women seemed to show that they were clothed in what is known as "a fore and aft *rami*"—that is, a *rami* or grass petticoat worn round the waist and covering the back and front, but open at the sides.

At village A the women "commonly wore a hood and cloak combined, reaching below the knees, and made of bark, whereas at the lake nothing of the kind was noticed."

In the other villages the use of a grass covering for the posteriors (men's), which was often exaggerated by way of ornament into a tail, was more common at Lake Murray than in village A.

All the natives used bows and arrows, with cane gauntlets more substantial

* Mr. Murray distinguishes these by the dates on which he visited them, 1st April and 4th April.

† *Rami* is a general term used by Europeans in Papua for a native petticoat of grass. It is the Motu word *rami*. It has, of course, different names and shapes among different tribes.

than those seen elsewhere. In village B the people were found "wearing cuirasses of rattan—solid pieces of armour, apparently completely arrow-proof, light and serviceable, readily slipped on or off, protecting both front and back, and reaching below the waist. These cuirasses were so fitted to the body as to keep up without shoulder-straps, and to cover all but the upper part of the chest, while leaving free play to the arms. To put them on and take them off the natives slipped them over their feet. They are called, apparently, *Trim*." Mr. Murray notes that only one of these cuirasses has previously been found in (British) Papua (in 1876, by D'Albertis, II, p. 125-6), but they have been found in other parts of New Guinea. They were not known to the people of village A or to those of Lake Murray.

Clubs were seen only at village B; these were made of stone with a curious egg-shaped head, apparently of quartz, with a hole pierced through it lengthwise into which a handle was fitted.

Mr. Murray notes a difference between the big or communal house of village A and that of the lake. "The big house of the former village was simply a large open airy building with wide entrance at each end stacked with all sorts of trophies and valuable objects, *e.g.*, stuffed heads, jaw-bones, and other relics apparently of friends or relations, drums, bows and arrows—whereas the house at a deserted village which we visited on the lake was a much more elaborate structure. The village had only been recently abandoned; it had been raided and some of the defenders killed, and the inhabitants had afterwards returned, buried the dead (or rather their headless trunks, for of course the heads would be carried off by the victors), removed all their property that was left, and built a new village elsewhere. Such at least was the interpretation placed by the police upon the general condition of the place, especially some graves which we found in front and inside the house, each one of which was marked by two arrows which had been stuck in the ground; the arrows had then been split and a stick inserted, the whole making a rough kind of cross.

"The Lake Murray house differed from the other first of all in shape—for it had a high overhanging entrance like the houses in the Purari Delta—and, secondly, in the fact that the front was almost blocked by a wall of sago palm which only allowed entrance by a very low and narrow aperture. Inside there was a barrier of similar material down the centre, and barriers across, and there were also raised platforms—all quite different from the house at the other village."

The houses of village B "were remarkable, and unlike any I have seen elsewhere, for they were built in, or rather round, trees, and yet differed from ordinary tree houses in the fact that they were also supported by piles. The ordinary tree house is built in a tree, in much the same way that an ordinary bird's nest is built in a tree, and is supported by the branches, but in these houses the tree trunk is used as a support, and the branches are not used at all; in fact, in those which I saw, the branches had been lopped off. There were eight of these houses in the village of 4th April (village B), and seven exactly similar had been seen the day before. Of these latter (which were deserted) one, which I particularly examined, was built of five big live trees (one particularly large one), one or two smaller live trees, and about thirty posts; the floor was 42 feet from the ground. A ladder led up into this house; A. C. Gegera ascended it and found in the house some fish and alligator bones, the head of a pig, &c., but no weapons or implements."

"These houses were loopholed. The first two we saw had respectively nine and twelve loopholes symmetrically arranged on the side facing the river, and the others had about the same number."

In the big house at village A heads were found stuffed like those found on the Strickland, and described by D'Albertis (II, pp. 133-4). Mr. Murray notes that D'Albertis was mistaken in regarding the skull as having "been removed by means

of a long cut at the neck." Though the long cut is made at the back and the skin drawn forward over the face, the flesh being removed and replaced with clay or fibre, the skull is not removed; it is there all the time."

"The canoes (of village A and the lake) seem to be the same, and are of the same type as those of village B, but immeasurably superior, as is to be expected, seeing that the inhabitants of the last-mentioned village are probably to be classed primarily as bushmen. The best canoes (made, like all the river canoes I have seen, out of a single tree trunk without outrigger) can hold twenty men; they have a flat protuberance at the end like a platform, upon which a man can stand."

In all the villages the dog was domesticated, but not apparently the pig. "At least no village pigs were seen, though the wild boar was known and boar's tusks used as ornaments."

Tobacco was known and plots were seen at all the villages, and some, at least, on the Fly, knew the small kind of betel called *viorro* by the Motu. "A few sago palms were seen on the Fly, and were probably plentiful, for most houses were built with sago palm, at any rate on the lake, and instruments for the manufacture of sago were among the articles found in some of the shelters on the bank of the Fly." Village B had a good garden, with bananas, taro, and a yam (known in Kiwai as *tewi*). Sugar cane was used here, and was seen also at Lake Murray.

The Fly was again ascended by Messrs. H. J. Ryan and S. D. Burrows in May, 1913. Their launch was stranded on one of the upper tributaries above Lario Bank for five months, and when they reached the main river again they were stranded on a sandbank for thirteen days.

Mr. Murray notes in the *Annual Report* for 1914-15: The native population between the Fly and Strickland Rivers appears to be inconsiderable, and those whom the party (Messrs. Ryan and Burrows) met offered no very remarkable peculiarities; but among the numerous visitors who came to see them while they were on the sandbank in the Fly were a party of six, who, if they may be taken as a fair type of their tribe, might possibly be classified as pygmies, or, more probably, as a mixed race descended from pygmies and people of ordinary stature. "On the tenth day," says Mr. Burrows, in his report, "six men came, and from what could be gathered they came from the mountains, and were only on a visit to their friends. These men were remarkably small, but splendidly built. They all measured from 4 ft. 10 in. to 4 ft. 11½ in. in height, and one, the most sturdy, went 37 in. chest measurement."

LANGUAGE.

The vocabulary collected at Lake Murray consists only of fifty-seven words, but short as it is, it proves to be of considerable interest. On looking through it, some words seemed so much like the language of the Merauke tribe (*i.e.*, the people sometimes called Tugeri), that a closer comparison was made with languages at the western end of British Papua, and these comparisons apparently establish a connection between the people of Lake Murray and those further west than the Kiwai, who occupy the delta of the Fly River and the adjacent coast. The vocabulary thus supports Mr. Murray's observation, quoted in the earlier part of this note, that the natives of this region "resembled the Morehead people." If this be so, the tribes connecting the Merauke with the people about Lake Murray may be looked for in the country extending from the Middle Fly River to the upper waters of the Wasi Kussa, Morehead, Bensbach, and Merauke rivers, that is, inland, rather than along the coast. Nothing is known of the languages of the northern part of this region, but there are a few apparent resemblances between words from Lake Murray and

those from the rivers in the south. Mr. Murray's vocabulary of the language at Lake Murray, collected in January 1917, is as follows :—

English.	Lake Murray.	English.	Lake Murray.
Arm - - -	bimbi.	House - - -	koi iba, fa.
Arrow - - -	sangapa, sangava.	Leg - - -	kambag.
Arrow-guard - - -	pusiki.	Lime - - -	agingi.
Bag (for pipe) - - -	ava.	Mouth - - -	tagu.
Banana - - -	napit, napeka	Navel - - -	dukumi.
Belt - - -	gusigusu.	Necklace (beads) - - -	web.
Crossbelt - - -	koia.	Necklace (dogs' teeth) - - -	pursaki.
Bird or duck - - -	fiafi.	Nipple - - -	tete.
Bow - - -	faifi.	Nose - - -	kisi.
Breast - - -	savi.	Nose-bone - - -	putiaki-kisi.
Breast ornament (mother-of-pearl). - - -	peta.	Paddle - - -	kavia.
Buttock - - -	dumu.	Penis - - -	bo.
Canoe - - -	kagua.	Pipe - - -	mokova.
Cap - - -	guzunda.	Pubic nut - - -	ati kowop
Cicatrix (zig zag) - - -	kuti kuti.	Pubic shell - - -	biva.
Coconut - - -	wongat, boka	Skin - - -	sisik.
Ear - - -	kumbit.	Sugar cane - - -	sekap, simaka.
Ear ornament (of fibre) - - -	gainami.	Sun - - -	ka-ia.
Ear-ring - - -	sokozunda.	Teeth - - -	kama.
Earth, soil - - -	mangi.	Testicle - - -	gazi.
Eye - - -	boi.	Thigh - - -	bufu.
Face - - -	kisi (danga).	Tobacco (native) - - -	kagai.
Feather ornament - - -	koma.	Tomahawk (European) - - -	kauba.
Foot - - -	zinda.	Vine (plaited into hair be- hind) - - -	kizam.
Gourd - - -	gofa.	Water - - -	nia.
Hair of the head - - -	gi.	Whiskers - - -	motu.
Hand - - -	jenda.	One - - -	zenta.
Head - - -	mongo.	Two - - -	singi.
Head ornament (feathers) - - -	kavu.		

In the *Annual Report*, 1913-14, Mr. A. Lyons, speaking of some of the languages between the Wasi Kussa and the Netherlands boundary, says, on the authority of Mr. J. A. W. Coenen, that they "show some resemblance to the language of the Murinda Nim or Tugeri, and a little also to the Jey language of the Upper Merauke River." The Jey words quoted—*damke* (arrow), *bwi* (sago), *mirre* (head), *nampi* (one)—are compared with the words *namp*, *nambi* (arrow), *bi* (sago), *moru* (head), *niambi* and *nambi* (one), used in several languages spoken inland on the Morehead and between the Wasi Kussa and Morehead. None of these, however, appear in the Lake Murray vocabulary, with the doubtful exception of the word for head.

Apparent likenesses between the Lake Murray and Merauke words are the following :—

Arrow: *Sangapa, sangava*. Toro (Bensbach River) *anger*, Merauke *kapan* (a blunt bamboo arrow).
 Banana: *Napit*. Merauke *napit*. In Bangu (Morehead River) a banana is *viäha*.
 Belt: *Gusigusu*. Merauke *segus*.
 Coconut: *Wongat, boka*. Merauke *onygat*. In Bangu *mangar* (coconut), *bāk* (point of coconut).
 Ear: *Kumbit*. Merauke *kumbit*.
 Head: Mongo. One authority has Merauke *manöe* (*ke*,¹ but another has *pa* for "head."² Parb (Wasi Kussa R.) *mor* head, Dungenwab *mor-kwod* head, in which *kwod* is "bone."
 Head ornament (*feathers*): *Karu*. Merauke *hee put* (ornament of cassowary feathers on the head hanging down behind).
 House: *Koi-iba, fa*. Merauke *aha*.
 Navel: *Dukumi*. Merauke *dakumē*.
 Paddle: *Kavia*. Merauke *kavia*.
 Vine plaited in hair: *Kizam*. Merauke *samē* (a long plait of hair hanging down to the middle of the back). *Ki* in the Lake Murray word appears to mean "hair." Cf. Vocabulary.

Other similarities with languages between the Wasi Kussa R. and Merauke are :—

Canoe: *Kagua*. Dungenwab *toqua*, Parb *toqu*.

Hair of the head: *Gi*. Cf. Dungenwab *jib*, in *mör-jib* (hair), Parb *jeb* in *meri-jib* (hair). *Mör*, *meri* mean "head."

Hand: *Jenda*. Dungenwab *tonda*, Parb *tond*.

Leg: *Kambag*. Bangu *kabokabo* foot, Dungenwab *kēb* (foot), Parb *keb-kabokab* (foot-sole).

Mouth: *Tagu*. Bangu *danka*.

I find no likenesses between the Kiwai of the Fly Delta and the Lake Murray words, but a few resemble those of languages of the Lower Fly and languages between the Fly and Wasi Kussa.

Canoe: *Kagua*. Tagota (Lower Fly) *kwaoa*.

Feather ornament: *Koma*. Dabu (West of Kiwai) *kum*.

Mouth: *Tagu*. Kuhini and Masingara (between Dabu and Kiwai) *tage*.

Teeth: *Kama*. Tagota *kam* (teeth), Pisirama (Lower Fly) *kam* (mouth and teeth).

Water: *Nia*. Jibu (between Dabu and Kiwai) *nia*, Kunini *nie*, Bugilai (Mai Kussa River, between Dabu and Wasi Kussa) *ngi*.

Further information from the Lake Murray region will be awaited with interest.

SIDNEY H. RAY.

Ibo: Folk-tales.

Thomas.

Stories (Abstract) from the Awka Neighbourhood (II). By N.

W. Thomas.

25

7. UGLY GIRL.

The girls said they would dance for *Akpunemendo* (town). All the girls collected and good dancers were picked. One could not go because she was not fine. The others spat on her and blew their noses at her and knocked her on the head with their hands.

She followed them, reached water, and said, "Let me tell you what happened," etc. The water said, "Wash." Then she went on.

She met a woman shaving her daughter's head, and told her. The woman said, "Let me shave your head." Then she went on.

She saw a woman grinding camwood and told her. She got camwood and then went on.

She saw people marking *uli*.* She got *uli* and went on.

She saw a man making cloth. She got cloth for her waist and shoulder and head and went on.

She saw a man making *ākā* beads. She got many and went on.

She saw a man cutting ivory. She got anklets and bracelets and went on.

She came to the dancing place. "Who is that?" they said. "Perhaps that ugly girl."

The women finished the dance. Then the young men picked wives, but all said they wanted the ugly girl. So the others cried and went home.

8. TORTOISE AND ANIMALS.

The tortoise called the animals. He said he would wrestle, and all the animals were to tie on good cloth. "All right," they said. All but the tortoise had cloth. The tortoise went to *aši akuru* and took bark, beat it and put it on.

The tortoise said, "When we wrestle, knock each other down on the stone." "All right," they said. *Ŋwuku* (like bush cat) and *atani* wrestled and *Ŋwuku* "knocked" *atani*† on the stone, so that it nearly died.

The tortoise cut off the ear of his own goat [the tortoise had killed the goat and taken the meat to the place].

* *Uli*, black juice for marking the body.

† *Atani*, a kind of mouse; *okwa*, "bread fruit"; *okbaka*, oil bean.

The tortoise danced and gave the ear to *Nwuku* to eat. All the animals danced, sang, and went home.

The tortoise [asked *Nwuku* for the ear. *Nwuku* said he had nothing. He offered food and soup. "All right," said the tortoise, and went home. The animals met there. "Why did you give a present to *Nwuku* and then ask for it back?" they asked.

The tortoise said, "All right; go home; the goat was mine." "All right," said they, and went home.

The tortoise called the animals to sacrifice to *Ekwensu* (which is the *alose* of tortoise). They collected yams. The tortoise said, "Clean the yams and put them in one pot." The tortoise put one small red yam in. They cooked the yams. Then they took them out and all were changed into red yams, and they gave them to the tortoise. The tortoise ate some and told them to take the yams as a present from him.

On the day of another sacrifice to *Ekwensu* the tortoise told them to put yams in a pot. The animals said, "No; each have his own pot." Then they cooked them. When the yams were done the animals ate. The tortoise cooked one small red yam and ate it, but it was not enough. He threw the water away secretly in the bush and called the animals to see. "*Mwo* carried off all the yams of animals the other day; to-day it has carried off mine." So the animals brought yams for the tortoise; their wives gave *okbaka* and *aku ofele* (tomato leaf), and the tortoise gave the yams to the women as a present.

One day the tortoise said, "*Apia* will make a feast for us to-day; *Apia* lives on a tree. I am your father, but I have no wings to fly to *Apia*." "All right," they said, "we each will give a feather and you will get wings to fly." The tortoise flew; they reached *Apia*'s place. The tortoise said, "To-day I will name my children." He called one *Nęniye* (look at it), the other *Ununine* (you all).

Apia cooked food, put it down, and said, "*Nęniye*." The tortoise said, "That is for my child." Then the tortoise and *Nęniye* ate. The animals said, "Let us go," and all flew to the *iroko* tree. They said, "Let each take his own feathers from the tortoise." The tortoise called to his wife to put a heap of sand at the bottom of the *iroko*. The tortoise fell on the sand and broke. "Now that you kill me, find someone to sew me up." *Anum* called *Orira* (grasshopper); it sewed his body. The tortoise said, "I have no money." "Then break me and sew me up," said the grasshopper. "I don't know how to sew," replied the tortoise. The tortoise brought *Uli* and told *Orira* he would mark it; it was too white. "All right," he said, and marked it, and the grasshopper became black. "Now you are black I can't pay you for sewing me up," he said. "All right," said the grasshopper.

9. THE TORTOISE AND THE HORNBILL (*Apia*).

The tortoise sent his son to *apia* for fire. The boy got there and saw *apia* roasting nuts; it gave one to the boy and put fire on the sherd. The boy did not know a nut, so he carried it home and gave it to the tortoise. "Let me eat it; I am an old man." The tortoise went and put the fire in the water, and sent the boy to *apia* for fire. "The boy went and played; I never saw him here," said *apia*. "Let me help you eat nuts," said the tortoise. So the tortoise ate three or four at once, *apia* one. "You eat all my nuts," said *apia*. "Where did you get those nuts?" the tortoise asked. "From the middle of the river. Take two big yams, roast them, and put palm oil; put them in a bag, and put this in *mpio*. Then you take it from the other side and hang it on your shoulder. But don't look inside. Then you get many nuts." The tortoise took the fire, said goodbye. He went outside to *mpio*, and went into the bag when *apia* put it there. *Apia*

flew to the river and put nuts in bag. The tortoise cut a hole in the bottom of the bag, and ate yams and all nuts *apia* had put in the bag.

Apiu touched the bag, and said, "No nuts ; I must look." He saw the tortoise, and put the bag on a tree, filled it, and flew away.

The tortoise took one leaf, made *ógù* (double loop), threw it in the river, and said : "If the river swallows *ógù*, it will swallow me ; if not it will not swallow me." It did not sink. The tortoise fell, the fish came, and the tortoise said to them : "Carry me out." So they carried him out. "My hand hurts me," he said. "Dig a hole, and some go inside and some carry me." The fish said they could not all go in, so the tortoise sent to some to collect dry grass. Then the tortoise said : "All go inside." He covered them with grass and set fire, and the fish jumped out, and some were killed. He put them in a pot. Near his own house he met an elephant, and went into the bush. But the elephant saw him, and called after him, "What are you doing ?" "I defæcate," he said ; "wait." The elephant called again, and the tortoise replied, "Wait." Then he took some white pepper, put on dung, and said, "Answer." The elephant called, and the pepper answered. Then the tortoise carried the fish home. The elephant followed. The fish were cooked. The elephant came in, caught the tortoise, and put him under a wood vessel, which he sat on. The elephant ate the fish, and put the bone under the wood vessel, and sat on it. "You eat good fish and put the bone under the vessel," said the tortoise. "What ?" said the elephant. "You should eat the bone, and "put the good fish for me," replied the tortoise. "Eat," said the elephant. The elephant put all the bones under the vessel. "I eat bones," said the tortoise, "but "the fish are mine." "What ?" asked the elephant, "only I eat good fish, but "you, my father, eat bones."

The elephant took up the vessel. Then the tortoise said : "All right, I'll pay him out."

The tortoise went for a walk, and saw a man carrying *okwa*. He told him to cut it up and give it to the cow. The tortoise went to where the cow was eating, and the cow swallowed him. The boy led the cow to the farm. Then the tortoise spoke : "Cow of *Ñwa obelonye*, don't let man or woman eat your meat, "but only the tortoise." The boy looked ; he watched the cow. Then the tortoise spoke again. Then the boy drove the cow back again, and said it talked. *Ñwa obelonye* cried. He beat a bell, called people, and told them. Then he killed the cow and shared the meat. The tortoise came out of the cow's stomach, and said : "Take care, don't put men on my head." "We were just going to call you," they said ; "the cow talked." "Whose is it ?" he asked. "*Ñwa obelonye's*," they replied. "That is forbidden," he said. He said he alone could eat it, and he would carry off the meat. The tortoise began to carry off the meat, and his wife asked what it was. He explained. She sat down. The tortoise watched, and when she got up he said she had been doing what was forbidden. "Don't come near the cow," he said ; "if you do, I can't eat." So she went into the room. N. W. THOMAS.

REVIEWS.

Oriental Studies.

Bulletin of the School of Oriental Studies, London Institution. Published by the School of Oriental Studies, London Institution, Finsbury Circus, E.C. 1917. 130 pp. Price 6s. **26**

In an introduction to the first *Bulletin*, the Director, Dr. Denison Ross, gives a summary account of the purposes of the School of Oriental Studies in London. Though the main purpose, as expressed in the Charter of Incorporation, is to provide

instruction in matters relating to the Languages, Literature, and Customs of Eastern and African peoples, specially with regard to practical needs, research is also declared to be one of the objects to be fostered by the school. The supposed difficulties and want of incentive are refuted, and the necessity of a home school for intending travellers or future residents in the Orient is strongly insisted upon.

The Secretary, Dr. P. J. Hartog, gives an account of the origins of the school, and there is a full description of the opening ceremony. The remainder of the *Bulletin* contains samples of work and summaries of lectures delivered in the school. The first section includes three papers on Chinese and two on Indian subjects, with a general paper on Metre and Accent. The second section deals with Malay, Bantu, Hindustani, and Arabic, with a summary of a historical lecture on the connection of Ancient India with the West. A few reviews are included.

S. H. R.

Magic: The Mandrake.

Frazer.

Jacob and the Mandrakes. By J. G. Frazer. (From the *Proceedings of the British Academy*, Vol. viii.) London: Humphrey Milford. **27**

Sir James Frazer has brought together by far the most exhaustive account, ordered and illuminated by his wide learning and matchless literary gift, of the mandrake superstition and its precise relation to the story in Genesis. It would be interesting to know what he would say of the curiously similar belief of the Pawnees, mentioned in a note to my paragraph on the subject (*Primitive Paternity*, i., 45).

E. SIDNEY HARTLAND.

ANTHROPOLOGICAL NOTES.

Anthropology in the United States.

Dr. Ales Hrdlička, of the National Museum at Washington, has examined a large number of the mountaineers of Tennessee. They have many interesting psychological and even physical peculiarities, due to their environment, and in some cases doubtless also to more or less abnormal heredity. **28**

Dr. Hrdlička also visited the Shawnee and the Kickapoo of Oklahoma, where there is a rapid disappearance of the full-blood Indian in many tribes. In the two tribes mentioned, numbering collectively nearly 800 individuals, there remain to-day but three full-bloods, all of whom are near or over seventy years of age.

Dr. Hrdlička has been advised from Brazil that, owing to the war, in which Brazil is now to participate actively, the twentieth Congress of Americanists which was to have been held in Rio de Janeiro in June, 1918, has been postponed.

Dr. J. Walter Fewkes, of the Smithsonian Institution, reports new finds of important ruins in Colorado, some of them in the mountains west of Dolores, with several towers, which are numerous in this region. Another cluster of very interesting ruins, hitherto undescribed, he found in a side canyon of Hackberry, not far from Ruin Canyon. There are seven high buildings, one of them 23 feet high, with good masonry. - Another has the form of a horseshoe, the highest standing wall being 12 feet. It has resemblances to the Sun Temple previously discovered by Dr. Fewkes.

ANTHROPOLOGICAL MEASURES APPLIED TO AVIATION.

The United States have been divided into twenty districts for the purpose of examining candidates for the aviation corps. Each district is in charge of a professor (with temporary rank of captain in the U.S. Army), usually from the anthropological department of an university. In company with a doctor, he will endeavour to learn all that is possible about the candidates, both mentally and physically, so that it may be known what kind of men are best adapted to aviation. The records of the professor and doctor will be compared with the records of the instructors in aviation.



FIG. I.



FIG. II.

GALAWA AT MOMBASA.

Photographed by A. C. Haddon.

THE OUTRIGGER CANOE OF EAST AFRICA.

ORIGINAL ARTICLES.

Africa, East.

With Plate D.

Haddon.

The Outrigger Canoe of East Africa. By A. C. Haddon.

29

Canoes with outriggers are confined to the Indo-Pacific area, and are absent, and so far as we can tell always have been, from the Americas and Europe. Canoes with single outriggers are unknown in Africa, while canoes with double outriggers are restricted to the east coast, from about $4^{\circ} 30'$ to about $5^{\circ} 30'$ S. Lat, i.e., from Lamu to Dar-es-Salaam*; they are also used in the Comoro Islands and the north-west coast of Madagascar. Their occurrence in this region is certainly due to a cultural drift from Indonesia, which probably brought in its train the fish-traps seen in Plate D. Professor F. von Luschan says that the *galawa* is used by the Sswahili fishermen, and previously was only known from inaccurate reports and bad models. . . . Of course it is not indigenous, and as similar boats in the neighbourhood are known only from Madagascar, their origin is to be sought in Indonesia, Madagascar and Angasija being intermediate stations. He gives excellent detailed illustrations drawn by Dr. Weule (Plate XXVII, Figs. 2-2g), which I here reproduce (Fig. 1), but no further description is given. (*Deutschland und seine Kolonien im Jahre*, 1896. Berlin, 1897, p. 256.)

Mr. H. Warington Smyth gives a sketch of one of these craft from Zanzibar, which has the appearance of a wide open boat which is provided with eight seats. All he says about it is: "Arab dug-out '*gharawa*,' 17 feet by 2 feet 6 inches [6,182 m. by 762 mm.]. Upper strake pegged on, gaily painted to attract "market-women" (*Mast and Sail in Europe and Asia*, 1906, p. 315).

When I was at Mombasa in September, 1905, I photographed some examples of these canoes (Plate D).

The canoe is shorter and appears to be narrower than those referred to above, also a rudder is present. According to Weule's drawings the flat upper surface of the float is horizontal, whereas it is canted in the Mombasa and Zanzibar canoes; in Weule's and Warington Smyth's drawings each boom passes through and projects slightly beyond a hole in a vertical quadrangular peg, which in its turn passes through the float and projects on its lower surface; the same, more or less, occurs in the Mombasa canoes, but the peg is longer and somewhat narrower and its apex is lashed to the boom by a short slanting cord.

In order to trace the source of this type of canoe it was necessary to obtain the names of the several parts. I therefore naturally applied to Miss Werner and to Mr. C. W. Hobley, C.M.G., to ask if they could supply or obtain this information for me.

The former applied to her friend, Muhammad bin Abubakar (Kijuma), of Lamu, who very kindly sent her the names of the parts and a sketch, which I have had copied (Fig. 2). The booms are called *mirengu*; the peg, *rubi* (in Lamu Ki-Swahili); the float, *parapi*; and the paddle, *kafi*. Miss Werner adds that *parapi* does not strike her as being a Ki-Swahili word, and that at Zanzibar the booms seem to be called *matengo* [but S. H. Ray informs me that the float is called *matengo* in Ki-Swahili]; the outrigger boat is called *galawa* or *ngalawa* everywhere by the Swahili, as distinguished from *mtumbwi*, the ordinary dug-out, and *mashua*, a plank-built boat; mast, *mlingote*; sail, *tanga*. Meinhof says *galawa* is from the Portuguese galleão; she thinks it curious that it should mean an outrigger canoe only, as the Anyanja and (?) the Makua use the word for any canoe. She has also heard the booms called *ma'guu* (legs).

* Mr. H. Balfour informs me that he has seen many outrigger canoes at Dar-es-Salaam, but not further down the east coast, though he thinks they may extend to Kilwa (Quiloa).

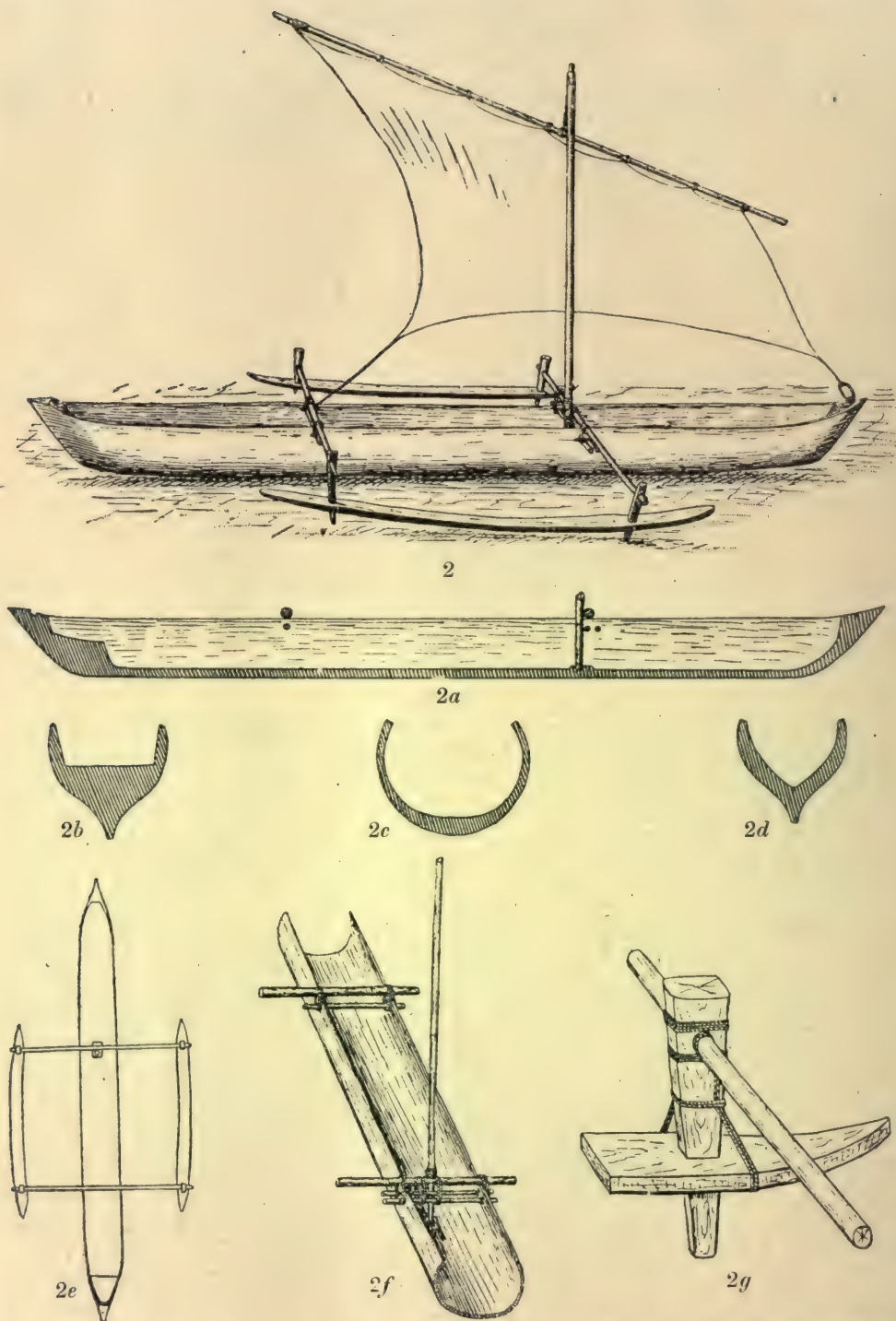


FIG. 1.—(2) Perspective view of a boat with a double outrigger from the "Suaheli" coast; (2a) longitudinal section; (2b, 2c, 2d) transverse sections; (2e) view from above; (2f) oblique view of the central portion of the boat seen from the front; (2g) outrigger attachment (*loc. cit.* p. 266). Dr. Weule, *del.*, 1896.

INFORMATION COLLECTED AT MALINDI, BRITISH EAST AFRICA, IN JUNE, 1914, BY
MR. H. R. MONTGOMERY, DISTRICT COMMISSIONER, AT THE REQUEST OF
MR. C. W. HOBLEY.

The *nghulawa*, as used at Malindi, is an outrigger canoe, made in the Comoro Islands and brought here by dhows. It is hollowed out of the trunk of a tree, and is fitted with a wash-strake (*mwati*) along the sides (*mbavu*), and a long triangular fore-wash-strake (*cheléko*) is nailed on to the bow (*oamo*).

The canoe has three seats, one *kipande cha nyuma*) at the stern (*tezi*) consists of a rounded stick, 25 mm. (1 inch) in diameter, let into the sides of the canoe, it accommodates the steersman; one (*kirida cha mlingoti*) in the centre of the canoe is an ordinary boat seat with a hole in the middle for the mast; and one (*kipande cha mbele*) in the bows, similar to that in the stern, is used for tying the anchor rope to as well as for a seat. The heel of the mast fits into a "step" or "shoe" (*mstamu ya mlingoti*) nailed to the flat bottom (*utako*) of the canoe. If other seats are required pieces of plank are laid across the canoe.

The sail used in a *nghulawa* is the same, in miniature, as that of a dhow. The mast is made of mangrove (*pau*) wood. When sailing a rudder (*sukani*) is used, but otherwise a paddle (*kafi*) is employed in steering. The rudder is detachable, and is similar to that of an English boat. The tiller is called *kana*, and the iron rings for attaching the rudder to the canoe are called *ramada*.

The outrigger consists of two transverse booms attached to floats. The booms (*mirengo*) are from 1·83 to 2·44 m. (6 to 8 feet) apart, according to the size of the canoe, and are placed much nearer to the stern than to the bows, presumably because it is an advantage in rough weather to have the weight aft and the bow slightly elevated. The booms are attached by ropes to two sticks similar to the *kipande cha nyuma*; they lie across, but are not attached to, the wash-strakes. The float (*parapi*) is from 2·44 to 3·05 m. (8 to 10 feet) long, according to the size of the canoe, and is 305 mm. (12 inches) wide by 76 mm. (3 inches) thick, and is inclined at an angle to the water; it extends about 305 mm. (1 foot) beyond the attachment of the *miguu*, and has pointed ends. The boom is connected with float by a piece of wood (*mguu*, pl. *miguu*), through which it passes, and is made fast by a rope lashing which has no special name, but it is called *kamba ya miguu*. The lower end of the *mguu* passes through the float, and is rendered more secure

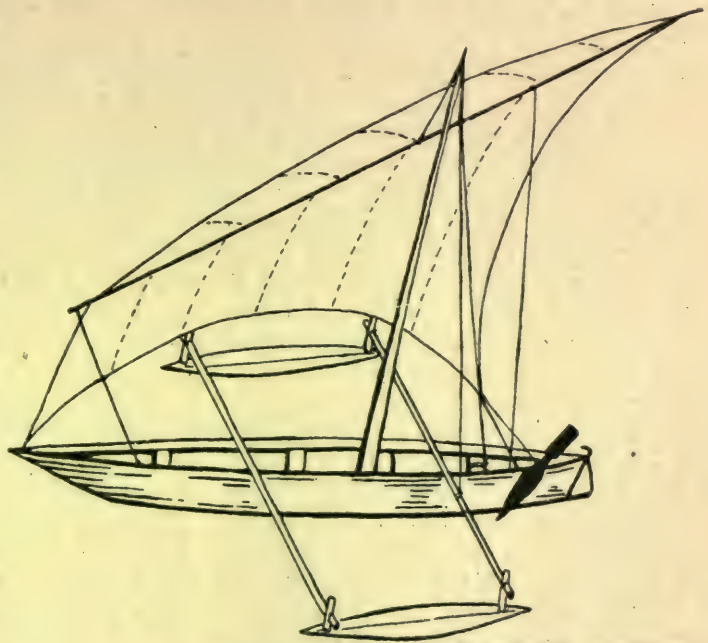


FIG. 2.—SKETCH OF THE GALAWA, OF LAMU.

by two "knees" or L-shaped pieces of wood (*kitaruma cha parapi*) nailed to the *mguu* and the upper surface of the float; this is the general attachment here.

In some cases the sides or bottom of the canoe get cracked or weak, in which case knees (*taruma*), shaped to fit tightly, are nailed on the inside. As the name implies, they are similar to the *kitaruma cha parapi*, only larger in size.

The names given above are the local names, in most cases in Ki-Swahili, but the terms *mirengo*, *parapi*, and *cheléko* are said to have been brought from the Comoro Islands.

There is another canoe (*hori*) in general use, but only for fishing inside the reefs or in calm weather. It is made in the Persian Gulf and brought here by dhows. It is fitted with a wash-strake (*daraba*), but has neither outrigger nor fore-wash-strake. The anchor rope is not tied to the forward seat as in the *nghalawa*, but is attached to a hole (*kharan*) in the bow (*oamo*). The other names for parts of this canoe are: stern, *tezi* or *aigiz* (Arab); gunwale, *naggish*; bottom of canoe, *buttin*; sides, *jumb*; seats, *suka*; knees, *mshaliman*.

In the present circumstances I am unable to deal adequately with the insular canoes of this type, and must content myself with the following notes on the Madagascar canoe, with the hope that our French colleagues will supply us with precise data about the canoes and canoe trade of the Comoro Islands.

Bishop R. K. Kestell-Cornish, in a narrative of a trip to the north-western coast of Madagascar, saw twelve canoes at Fàraràno, on the shores of the bay Béfôtaka, which he thus describes: "One was 26 feet [7.925 m.] in length, and " in breadth only 25 inches [635 mm.]. It was formed of the trunk of one tree, " and a plank on either side was added to give the necessary depth. There was an " ingenious outrigger projecting some 5 feet [1.524 m.] on either side, and on the " lee side bounded by a piece of timber shaped like the bottom of a canoe, which " took the water when she heeled over. . . . These canoes, called *làkam-piàra*, " are commonly worked by two men . . . there is a raised platform for [the " convenience of passengers]. In so frail a structure it would be impossible to step " a mast; they therefore work the sail by means of two sprits, which are stepped " into holes which run along the keel line. If you are going before the wind the " sprits occupy the holes which are nearest together; if close-hauled those which " are further apart . . . We made as much as twelve knots an hour. The " wash came in and wetted us a good deal. . . . At last the breeze freshened, " and in spite of the outrigger, we heeled over a little too much, upon which one " of our men got upon the windward outrigger, on which he managed to squat and " restore the equilibrium." (*The Antananarivo Annual and Madagascar Magazine*, III, 1877, pp. 23, 24.)

The Rev. R. Baron refers to "a *làkam-piàra* or outrigger canoe" at Ambòdimadiro, also on the north-west coast (*ibid.*, XI, 1887, p. 275).

In his notes on the Antankàrana of the extreme northern part of the island the Rev. R. T. Batchelor refers to exceedingly graceful *làkam-piàra*, which average 6.1 m. (20 feet) in length and 61 cm. (2 feet) in greatest width, but he does not mention an outrigger (*ibid.*, III, 1877, p. 29).

Judging from the foregoing description, the *làkam-piàra*, or one form of it, has one float only, a central platform, and the booms which project on the windward side are used as a "weather platform" (A. Lane Fox, *Journ. Anthr. Inst.*, IV, 1875, p. 430).

The Rev. James Sibree (*The Great African Island*, 1880, p. 179) says: "On " the north-west coast again, the outrigger, a nautical feature never seen in Hova " canoes, is largely used for the canoes of the Sàkalàva and Antankàrana, in fact " they could not otherwise live in the rough waters of the broad bays and inlets of

" the coast. Some of these craft are quite different in construction from any Hova canoe, being made of very thin planking, and have a curiously-curved piece rising from the head and stern. It seems possible that some of these canoes have been introduced by the Banyan traders from India; for, if I am not mistaken, some of them much resemble the boat in use at Madras and other Indian ports. Others, however, are probably coeval with these northern Malagasy tribes themselves. One kind of canoe much used among the islands and bays of the northernmost part of Madagascar is called *lâkam-piàra*, the *fiàra* being a raised platform in the centre, intended for people to sit upon, or to place any luggage. One of these is described by Bishop Kestell-Cornish." The other canoes referred to by Dr. Sibree do not concern us here.

Canoes with double outriggers and two booms are characteristic of Indonesia. The attachment of the float to the booms is a matter of some importance (*cf.* A. C. Haddon, "The Outrigger Canoes of Torres Straits and North Queensland," *Essays and Studies presented to William Ridgeway*, Cambridge, 1913, p. 609). I have not been able to match the East African attachment with that anywhere else. The nearest approach to it is that termed by Friederici the "Halmahera attachment"; this consists of a strait, bent, or forked stick or spar which usually rests upon or is fastened to a longitudinal spar connecting the booms of the outrigger as well as being fastened to the booms themselves. It occurs on the north coast of Ceram, south and west coasts of Buru, the Sula (Xulla) Islands, Celebes, as well as on Halmahera and neighbouring islands. The stick or spar may be vertical or oblique; it is always simply lashed to the float, boom and longitudinal spar, and thus differs from the East African attachment. Thus the type of the outrigger does not carry us very far.

Nor does the linguistic evidence help us very much.

The term *lâkam* (*laka*) (Madagascar) for an outrigger canoe, may reasonably be connected with *hākā*, of Ambon (Amboina), which in the West Pacific has the variants *hak*, *aka*, *vākās*, *bākati*, *hākās*, *ak*, etc., and as *wangka* and its variants is spread all over Oceania, of which *waga*, *waka*, and *wa* are common in Melanesia. S. H. Ray informs me that the Hova term is *lakana*, the *na* is not radical, and that *laka* is no doubt the Melanesian *waka*, etc., also that Malagasy and Tagal are more closely related than either of them is to the languages of the islands between. He also gives me the following words for the mainland outrigger canoe: Swahili, *galawa*; Yao, *ngalawa*; Makua, *ikalawa*; Nyanya and Nyamwezi, *ngalawa*.

I cannot trace the name for the booms, *mirengo*, etc.

The almost universal term throughout Indonesia and Oceania for the float is *sāmān*, or variants of that word. S. H. Ray wrote to me that "the second canoe of a Fijian double canoe is called *dhama*, i.e., the outrigger." I, too, found at Mailu, in the south of British New Guinea, that the larger element of the double canoe, *orōū*, is called *tsebi*, and the smaller *larima*, which is the same term that is employed for the float of the single outrigger canoe *vāōna*. I shall not here discuss whether the name for the float of the outrigger was derived from the second element of a double canoe, or the reverse. Other words in Indonesia for the float are *bārā*, of Buli, Halmahera, and *katir*, of Bali, which has a few variants, *katig* (Bisaya), *katik*, etc. The term *parapi* is probably a variant of *bārā*; it cannot be of any of the other terms known to me.*

The word *prahu* (and its variants), for a boat or canoe, occurs all over Indonesia, and as far east as New Britain, where it appears as *parau*. Ray suggests

* The foregoing Indonesian data have been borrowed from G. Friederici, *Mitt aus den Deutschen Schutzgebieten, Ergänzungsheft*, Nr. 5, Berlin, 1912.

to me that *bara* and *parapi* may be the same word, in which case the term for a canoe has been applied to a float.

W. Müller-Wismar says that all Indonesian floats appear to lie obliquely in the water [this also occurs in the Malindi and Zanzibar canoes, but is not indicated in Weule's drawings, nor do I think it is universal in Indonesia], but according to his observations this is never the case among the Melanesian and Micronesian floats, which lie flat on the water. (*Baessler-Archiv*, II, 1912, *f.n.* 2, p. 244.)

I hoped when I began this enquiry to be able to make a definite suggestion concerning the origin of the East African outrigger canoe; unfortunately, all I have been able to do is to state the problem more precisely, and I must now leave the matter in the hands of those who can adduce further evidence. A. C. HADDON.

Wilts: Archæology.

A Fragment of Blue Stone near Avebury, and its Accompani-

ments. By Rev. H. G. O. Kendall., M.A., F.S.A.

Kendall.

30

On November 22nd, 1917, I picked up, on a field at East Farm, Winterbourne Monkton, North Wilts, a fragment of stone, which Dr. Blackmore tells me is "a fine,

" laminated, micaceous sandstone, very similar
" to the so-called altar stone at Stonehenge.
" This is the first piece of evidence showing
" the association of the blue stones at
" Stonehenge with Avebury." Like myself,
Dr. Blackmore is quite convinced that this stone has been chipped into shape all round its periphery, so as to produce sharp-cutting edges and form a knife. The material, similar to that used by Bronze Age Man in erecting Stonehenge; and the outline, recalling that of a small, broad-bladed bronze dagger; suggest that this implement is of the Bronze Age. The intention of the maker was, apparently, to give the knife a rounded base; but it was broken either in manufacture, or, more likely, on a later occasion.

Dr. Blackmore considers that it may have been brought from Stonehenge as a treasured possession. It is, however, possible that it was taken off an altar stone, or an upright stone, at Avebury, the parent block having been either since destroyed or having yet to be found.

The spot where the fragment was picked up is three-quarters of a mile N.N.E. of Avebury. A few chipped flints of post-

Palæolithic date are to be found there. The majority are lustrous and unchanged in colour, i.e., black or grey. Some, however, are blue. They probably come late in the sequence of surface flints of this neighbourhood. Chipped flints of various periods, from Neolithic downwards, occur, of course, in all this neighbourhood. On this particular spot there are also numerous "Eoliths." Here, too, a shallow open valley debouches on the Kennet, having its origin in acombe on the escarpment where Hackpen Hill ends and Monkton Down is marked on the maps. There is a "river"



of sarsens all down this combe and valley to the eastern boundary of the field in question. They end abruptly here, the reason being that they have been drawn off to make way for the plough. Precisely the same phenomenon may be seen on the ridge itself. The ploughed field on the top of Hackpen Hill, near Glory Ann, which lies just above the head of the combe, was once, according to Rev. A. C. Smith,* the fountain-head of the sarsen stones; but it has been almost entirely denuded to make room for growing crops. It is certain that the constructors of Avebury must have had recourse to this valley in obtaining sarsen stones. Doubtless it was frequented in subsequent ages also. Incidentally, it may be mentioned that some of the stones still remaining in it have certainly been moved and stood up on end.

In MAN, 1905, 64, Prof. Flinders Petrie mentions shelters made of boulders drawn together, near the temple at Serabit-el-Khādem, Sinai, in connection with upright memorial stones there. There are many spots both on the Marlborough Downs, and again on the Cornish moors, and on Dartmoor, where, as it seems to me, large stones have been pulled into position by man, perhaps for the foregoing purpose. This idea is borne out by the fact that flint flakes, &c. sometimes occur underneath the sarsens.

Rev. A. C. Smith records his impression that some of the stones appear to assume "the form of more or less irregular segments of circles, and others of straight "and parallel lines." This accords exactly with my own observations made independently.

Dr. Blackmore was good enough to show me a piece of blue stone picked up at Soulgès, in Brittany, five years ago. H. G. O. KENDALL.

Africa, East.

Seligman.

A Linguistic Fragment from Western Kordofan. By Brenda Z. Seligman. 31

The following short vocabulary was obtained from a Pygmy, said to have come from Dar Fertit. He was an old man and had been a slave among the Kababish, in Kordofan, since his childhood, and, as was evident when I tried to push my enquiries further, he had forgotten his native tongue, for when induced to answer simple questions in the language of the vocabulary given below (presumably that of his childhood), he used Arabic constructions. I have submitted this fragment to Mr. S. H. Ray and to Sir Harry Johnston, neither of whom were able to identify the dialect or state its affinities, and it is at the suggestion of the latter that I publish the fragment, in the hope that it may be of use in the future.

I think there can be no doubt that the subject of this note was a genuine Pygmy. He was considerably under 5 feet in stature, showed no traces of any pathological condition, and presented the peculiar gait and merry, restless manner which I had previously noted in an old Pygmy, said to have been a slave of Zobeir Pasha, I met at Kodok, on the White Nile. His chief measurements were as follows:—

H.L., 184; H.B., 136; C.I., 73·9; F.L., 108; Bizyg.B., 132; F.I., 81·8; N.L., 47; N.I., 45; Stature, 1·45m.

His skin colour was dark, but less so than that of his fellow slaves of Dinka origin.

The following simple notation has been adopted to reproduce the sounds occurring in the vocabulary as accurately as possible without adopting the full phonetic alphabet. The consonants are as in English except that the *l* is more liquid; *g* is pronounced as in "gas"; *z* is pronounced as in "zoo."

č represents the *ch* in "child."

ñ represents the nasalized sound of *ng* in "sing."

* *British and Roman Antiquities of North Wiltshire*, p. 128.

ʼ represents the bilabial *v*.

' represents a slight stop like the Arabic *hamza*.

The vowels are as in Italian, - being placed over a long vowel and ˘ over a short vowel.

An inverted *e* is used for the short unstressed vowel sound in "father," as *ua* (water).

An inverted *v* is used for the vowel sound in "but," as *ava* (hyæna).

' is placed over a stressed syllable.

Boy -	-	-	-	ñuma	Water -	-	-	ñə
Dog -	-	-	-	əná	Woman -	-	-	űfűgű
Earth -	-	-	-	vñ	One -	-	-	ilā
Elephant -	-	-	-	umvörö	Two -	-	-	okári
Gazelle -	-	-	-	ngwómi	Three -	-	-	ukūtə
Giraffe -	-	-	-	indakála	Four -	-	-	ekádi
Head -	-	-	-	idruma	Five -	-	-	iniglə
Hippopotamus -	-	-	-	oññfö	Six -	-	-	isädilə
House -	-	-	-	'lu	Seven -	-	-	isärükari
Hyena -	-	-	-	avλ	Eight -	-	-	isarukutə
Leopard -	-	-	-	öbä	Nine -	-	-	isarikádi
Lion -	-	-	-	čədiñáñi	Ten -	-	-	enáro
Man -	-	-	-	űmbürúmburű	Eleven -	-	-	isadilə ?
Moon -	-	-	-	űmægű	Twelve -	-	-	enaro okari
Mountain -	-	-	-	āñi	Twenty -	-	-	arésu
Ostrich -	-	-	-	āngā	Twenty-one -	-	-	aresu isarila
Pit -	-	-	-	anzű	Twenty-two -	-	-	arésu isarikáru
Shelter -	-	-	-	vu	Thirty -	-	-	'űvögälə
Snake -	-	-	-	āñba	Many -	-	-	ātārānzəro
Stars -	-	-	-	'li	One man -	-	-	űməgu ilā
Sun -	-	-	-	əngúrís	Two men -	-	-	uəgu okár
	-	-	-	űdrə				

B. Z. SELIGMAN.

Ibo: Folk-tales.

Thomas.

Stories (Abstract) from the Awka Neighbourhood (III). By N. W. Thomas.

32

10. THE TORTOISE AND ORIMILI (NIGER).

The tortoise went to *orimili* and said they would be friends. "All right," he said, and fixed a day for the tortoise to visit him. He made *abača* for him and his wife, put fish in it, and cooked soup with one leg of a goat.

They ate and went home. The tortoise asked the river to come. He went on the road and defæcated, put pepper, &c. to call the river and say the tortoise had gone to his mother's country to beat *odi* (drum).

The river came and the pepper spoke. The river went back. The tortoise sent for the river, and it came. The tortoise cooked *abača* with one round fish, *fufu* and soup with one leg of a goat.

The tortoise said they would go to his mother-in-law to fetch the things he had left. "All right," said the river. The tortoise told the river he would give palm wine to his wife when she came to market and tell her what to do—to kill a goat to her *či*, and to cook a chop for him who killed the goat.

On market day the tortoise dressed well, and his wife did not know him. He gave her palm wine, and she told the tortoise when she came back. He said she had to kill her *či** goat. "All right," she said, and killed it for the *nkwo* market. The tortoise called the river, and they dressed. His wife cooked. The tortoise gave palm wine to his wife twice. She told him to come back, and he told his friend.

* *Či*, a personal tutelary deity.

His wife gave them food, etc. The tortoise carried it all to the river, and they ate it all.

The tortoise took a calabash, and sent it back and saluted his wife.

11. THE GIRL AND THE RIVER.

A girl told her mother to give her cowries to buy *uli* for the feast. "I have no money," said her mother. She begged her father and got the same reply. She went to *mili oiča* (big river) and went in. Her mother came; people told her her daughter was in the river. She went and called. "No, I can't come out," answered her daughter, "*mili oiča* has marked me well." Her mother went back. Her father called and got the same reply.

Her friend called and got the same reply. "Go to the market," she said, "and buy a pot and a white fowl, and some chalk and a white yam. Put them all in the pot, throw it in the river, and watch for me." "All right," he answered.

Then she came out and followed her friend.

12. THE TORTOISE AND ČUKU.

The tortoise went to Čuku's house and told him to give him twelve pots of *ačiča*; "in a year I will give you one person." Near the end of the year the tortoise had nothing and planted *okro*. It grew, and *ene* (cob) ate it. The tortoise asked "Who ate it"? and *ene* replied, "I did." The tortoise said, "I took twelve pots of *ačiča** from Čuku. I have no money. I planted *okro*, and you ate it. You must pay one person."

The tortoise went out. *Ene* went back. He saw a root on the road. It knocked his foot. He said, "The tortoise took twelve pots of *ačiča* from Čuku. He had no money and planted *okro*. I ate it. You knocked my foot; you must pay me one person." *Ene* went home.

The root looked. It made an ant-heap. A fowl wanted to cross, and ate the ants. The root said, "*Ene* ate the tortoise's *okro*. I knocked his foot. You ate my ants; you must pay me one person."

The fowl had a chicken. A hawk saw the fowl and tried to take the chicken. The fowl said, "I ate the root's ants. You take my chicken: you must pay me one person."

The hawk flew and found *dingwa* making palm wine. He said, "I caught a chicken; you must pay me one person." "I have nothing," replied the *dingwa*.

The hawk flew; the *dingwa* ran. No one could get a person.

N. W. THOMAS.

Japan: Folklore.

Some Japanese Charms connected with Earthquakes. By W. Hildburgh.

L. Hildburgh.

33

A certain tumbling toy, a comical image of the Buddhist ascetic Daruma (whose legs dropped off due to their long inaction), is sometimes kept standing in the alcove of a room, in order that the house may be firm against the shocks of earthquakes or of heavy winds [Kyōlo].† A very similar application of small images of this kind is their use by wrestlers, who sometimes carry them as protections against being overthrown [Yokohama].

When an earthquake occurs, a person fearing injury from it should repeat, over and over again, as rapidly as possible, the word "*Manzairaku*," signifying "Ten

* *Ačiča*, dried yam.

† Place-names given thus identify the localities in which I recorded the respective practices cited.

"thousand years of happiness" [Yokohama]. The term is used between persons as a form of congratulation; whether its employment against the effects of earthquakes is based upon its congratulatory significance, or upon some play on words, or, perhaps, on some set of words formerly used as a charm and whose original form has become altered in the course of time, I do not know.

Should one happen to be in a privy when an earthquake occurs, one should remain there until the earthquake is over, because exceedingly good fortune is thereby presaged; the luck which is to be expected is so exceedingly good that, upon leaving the privy, some small object of iron (a nail is the thing generally used, but anything, excepting a needle,* will serve), should be thrown into the privy, in order that the good luck may not be followed by bad [Yokohama].† The advice to remain in the privy, together with the promise of good fortune as the result of following it, we may, I think, perhaps look upon as the converse of the not uncommon Japanese threatening of penalties, to be produced by supernatural agencies, in attempts to inculcate good manners and seemly behaviour.‡ If this be actually the case, we might well look upon the object thrown into the privy as an offering to the god of the privy,§ in gratitude for the protection afforded during the period of danger from the earthquake, were it not that iron is a metal which, I believe, is frequently regarded in Japan (as it certainly is regarded in Japan's neighbours) as being distasteful to supernatural beings, and that a nail (the object mentioned by my informant as the one most generally used) is a thing often employed for the discomforting of a supernatural being.|| I am inclined to think, therefore, that the action under discussion has not improbably been intended originally as protective, because privies, being notoriously the haunts of evil supernatural beings,¶ a person while in a privy will naturally be peculiarly exposed to evil (and not merely that which may be caused by those evil beings which haunt the privy, but also that from other sources, since the beneficently inclined supernatural beings to whom he normally looks for his protection are likely to regard the evil-odoured and evil-haunted locality with disfavour), and if he has remained there through an earthquake and has escaped uninjured, he may perhaps throw the iron object into the privy as a means for rendering impotent the activities to which, by his exceptionally long stay

* For some notes possibly of help in explaining this exception, see MAN, 1917, 17.

† Ehman, "Volksthümliche Vorstellungen in Japan," in the *Mittheilungen der deutschen Gesellschaft für Natur und Völkerkunde Ostasiens*, Vol. VI, p. 330, says that "If one is in a privy at the time of an earthquake, one may expect good luck."

‡ Some examples of this are given by Ehman, *op. cit.*, pp. 336 *seqq.*; there can be no doubt, however, that he has gone much too far in attempting to nationalize a number of the beliefs he cites in this connection. Some examples may be found, also, in the collection of Japanese superstitions given by J. E. de Becker in *The Nightless City*, 1905.

§ "There is in modern times a God of the privy, who has no particular name, sex, or mythic record." Aston, *Shinto*, p. 167. Compare, also, "The goblin of the latrines must be propitiated on New Year's Eve by one saying *Kambari Niudo ototoguisu* on entering the privy." Joly, "Bakemono," in *Trans. Japan Soc.* (London), Vol. IX, p. 42.

|| Cf. MAN, 1915, 65, pp. 119, 120. A Shinto household shrine, if properly constructed, should be put together without nails (L. Hearn, *Glimpses of Unfamiliar Japan*, 1894, p. 398). Coffin-lids are fastened with wooden pegs, and not with iron nails, as these latter rot the wood; iron rings, for ropes, may, however, be put at the bottom of the coffin (M. Titsingh, *Illustrations of Japan*, London, 1822, p. 256).

¶ According to Hirata, a writer on Shinto, "privies, as well as dunghills, and all unclean places, are a favourite resort of evil spirits." Aston, *op. cit.*, p. 168. The belief that "women who sweep it out daily and make an offering to the God of a light on the last day of each month will be free from diseases below the girdle" (*ibid.*, *loc. cit.*), and other beliefs in which the Privy-god (or gods) appear beneficently associated with menstruation, are, I imagine, probably due to a process of the kind which, based on fear, has led to the deification of the evil supernatural beings to whom certain infectious diseases are ascribed.

in the immediate vicinity of the evil beings of the privy, he has become the more especially exposed.*

Putting the matter in another way, we may guess that perhaps the "good luck" promised has been intended merely to cause the person to remain in the privy during the earthquake, while the "bad luck,"† which he must try to avoid, is the supposed natural consequence of his protracted stay there. We may observe that this view would appear to be corroborated by the customary Japanese washing of the hands, after leaving a privy, in a vessel of water kept near the privy for the purpose, because this washing seems to be intended—like the washing of the hands before entering one's home after returning from a funeral—rather as a means for purification from spectral evils than as one for physical cleansing, since the water provided often becomes exceedingly dirty, it being changed in some places only once daily. The custom of setting the vessel of water by a nanten-tree (*Nandina domestica*) [Chikuzen province] would seem to afford further evidence in this direction, because the nanten is a tree to which recourse is had, for many purposes and in various ways, for the dispelling of evil influences, and its presence by the privy is probably intended to serve, I think, the double duty of keeping evil supernatural beings away from the privy and removing evil influences which may have been acquired therein.

But if we assume that—for some reason of which I am not aware—especially good fortune is really thought to be the result of remaining in the privy during an earthquake, and that the promise of it is not intended merely to ensure that a person shall remain there, the fear of evil fortune following upon it may possibly be due to some idea such as that underlying the ill-dressing of Japanese children in order "to prevent the noxious effects of the admiration which, if well-dressed, their beauty might excite,"‡ or that said to underlie the inverting of a part of the design upon one of the pillars of the Yōmei-mon at Nikkō, i.e., lest the otherwise perfection of the building bring misfortune upon the House of Tokugawa.§

A verse "well known even now among the people as an earthquake verse" [I take this to signify that it is used, in like manner to numerous other similar verses for other purposes, as a protection against the effects of earthquakes] is the following: "*Yurugu tomo, yomoya nukeji no Kaname Ishi, Kashimano kamino aran kagiri wa,*" which may be freely rendered as:—

"No monster can move the Kaname Rock,
Though he tug at it never so hard,
For over it stands, resisting the shock,
The Kashima Kami on guard."||

W. L. HILDBURGH.

* Perhaps a similar idea underlies the belief that to hear a cuckoo for the first time in the year while in a privy is unlucky (Ehman, *op. cit.*, p. 330), for the cuckoo is a bird which is associated with a land of the dead, and when its call is first heard it is perhaps thought to be but newly arrived from that land.

† As examples of the evils which the supernatural beings inhabiting privies are thought to be able to cause, there may be cited, as the threatened consequences of spitting in a privy, ophthalmia (*Shinto, loc. cit.*), blindness (de Becker, *op. cit.*, p. 152), and a "rough" mouth (Ehman, *op. cit.*, p. 336).

‡ *Manners and Customs of the Japanese in the Nineteenth Century*. London, 1841, p. 177.

§ E. M. Satow, *Murray's Handbook for Japan*, 1st edition. Yokohama, 1881, p. 412.

|| J. Hattori, "Destructive Earthquakes in Japan," in *Trans. Asiatic Soc. Japan*, Vol. VI, p. 251. This paper gives (pp. 250, 251) an account of the Japanese belief as to the causes of earthquakes, including the one concerning the great catfish (or, according to early records, earthquake insect) believed to live under Japan, to whose movements earthquakes were ascribed, which, together with the means by which it is kept comparatively quiet, is referred to in the verse above.

Europe: Witchcraft.

Murray.

Child-Sacrifice among European Witches. By M. A. Murray.

34

In studying the cult of the witches, plain and irrefragable proof is found that the personage called by Christian writers "the Devil," was considered by the witches themselves to be God incarnate as a man. To this deity they made sacrifices of various kinds, the most important of such sacrifices being that of a child. The child was either a witch's child, or was unbaptised; in other words, it did not belong to the Christian Church. This was an important point, and was the reason why unbaptised children were thought to be in more danger from witches than the baptised. "If there be anie children unbaptised, or not garded with the signe of the crosse, or orizons; then the witches may or doo catch them from their mothers sides in the night, or out of their cradles, or otherwise kill them with their ceremonies."* The same author quotes the following as among the crimes laid to the charge of witches: "They sacrifice their own children to the devil before baptism, holding them up in the air to him, and thrust a needle into their brains"; and "they burn their children when they have sacrificed them."† Boguet says: "Les Matrones & sage femmes ont accoustumé d'offrir à Satan les petits enfans qu'elles reçoient, & puis les faire mourir auant qu'ils soient baptisez, par le moyē d'une grosse espingle qu'elles leur enfoncent dans le cerueau."‡ Boguet's words imply that this was done at every birth at which a witch officiated; but it is very certain that this could not have been the case. The sacrifice was probably made for some special purpose, for which a new-born child was the appropriate victim.

The most detailed account of these sacrifices is given in the trial of the Paris witches (1679-81), whom Madame de Montespan consulted. The whole ceremony was performed to the end that the love of Louis XIV should return to Madame de Montespan, at that time his discarded mistress; it seems to be a more or less distorted fertility rite, hence its use on this occasion. The Abbé Guibourg was the sacrificing priest, and from other indications he appears to have been the Chief or Master of the witches, who, before a less educated tribunal, would have been called the Devil. Both he and the girl Montvoisin were practically agreed as to the rite; though, from the girl's words, it would appear that the child was already dead, while Guibourg's evidence implies that it was alive. The evidence of both witnesses was given gravely and soberly, and without torture. The Montvoisin girl, who was 18 years old, stated that she had presented "à la messe de Madame de Montespan, par l'ordre de sa mère, un enfant paraissant né avant terme, le mit dans un bassin, Guibourg l'égorgea, versa dans le calice, et consacra le sang avec hostie."§ Guibourg's evidence shows that the sacrifice was so far from being uncommon that the assistants were well used to the work, and did all that was required with the utmost celerity: "Il avait acheté un écu l'enfant qui fut sacrifié à cette messe qui lui fut présenté par une grande fille et ayant tiré du sang de l'enfant qu'il piqua à la gorge avec un canif, il en versa dans le calice, après quoi l'enfant fut retiré et emporté dans un autre lieu dont ensuite on lui rapporta le cœur et les entrailles pour en faire une deuxième [oblation]."

The whole of this ceremony seems to be traditional. Such a custom would account for the continued belief, in early times, of the blood or flesh of a sacrificed child in the most holy of religious rites. The belief is preserved in the accusations

* Reg. Scot: *Discoverie of Witchcraft*. Book III, ch. 1, Ed. 1584.

† *Id. ib.*

‡ Boguet: *Discours des Sorciers*, p. 205, Ed. 1608.

§ Ravaisson: *Archives de la Bastille*. 1679-81, p. 334.

|| *Id. ib.*, p. 355.

brought constantly against the Jews, and it occurs also in Christian legend, notably the Holy Grail: "The bishop took a wafer which was made in the likeness of bread, and at the lifting up there came a figure in the likeness of a child, and the visage was as red and as bright as any fire, and smote himself into that bread, so that they all saw that the bread was formed of a fleshly man. And then he put it into the holy vessel again."* The same idea is expressed with, even more precise and ghastly detail in a legend of Christian Egypt: "When the time of the Mysteries arrived, there appeared to the three of them as it were a child on the table. And when the priest stretched out his hand to break the bread, behold the angel of the Lord came down from heaven with a knife in his hand, and he slew the child and pressed out his blood into the cup; and when the priest broke off from the bread small members, the old man drew nigh that he might partake of the Holy Offering, and a piece of living flesh smeared and dripping with blood was given to him."†

In Scotland it was firmly believed that sacrifices of children took place in all classes of society: "The justices of the peace were seen familiarly conversing with the foul fiend, to whom one in Dumfriesshire actually offered up his firstborn child immediately after birth, stepping out with it in his arms to the staircase, where the devil stood ready, as it was suspected, to receive the innocent victim."‡ In the later witch trials the sacrifice of the child seems to have been made after its death, as in the case of the old Witch of Calder, who was accused of casting a spell on Lord Torphichen's son. She gave her evidence readily, without any suggestion of torture, and acknowledged that she had given her dead child, as Sinclair puts it, "to the devil, not only the soul, but the corpse, without a burying."§

It is possible that the killing of children by poison was one method of sacrifice when the cult was decadent and victims difficult to obtain. Both Reginald Scot, writing in 1584, and Sinistrari d'Ameno in the following century, state that "this must be an infallible rule that everie fortnight, or at the least everie month, each witch must kill one child at the least for hir part."|| It is impossible to believe in any great frequency of this sacrifice, but there is considerable foundation in fact for the statement that children were killed, and it accounts as nothing else can for the cold-blooded murders of children of which the witches were sometimes accused. The accusations seem to have been substantiated on several occasions, the method of sacrifice being by poison.¶

The sacrifice of a child was usually performed as a means of procuring certain magical materials or powers, which were obtained by preparing the sacrificed bodies in several ways. Scot says that the flesh of the child was boiled and consumed by the witches, for two purposes. Of the thicker part of the concoction "they make ointments, whereby they ride in the aire; but the thinner portion they put into flaggons, whereof whosoever drinketh, observing certeine ceremonies, immediatlie becometh a maister or rather a mistresse in that practise and facultie."*** The gang of Paris witches confessed that they "distilled" the entrails of the sacrificed

* Maiory: *Morte d'Arthur*, Bk. III, ch. 101. See also Evans: *High History of the Holy Grail*, Branch I, Title 6.

† Budge: *Paradise of the Fathers*, II, pp. 159-60.

‡ Sharpe: *Historical Account of Witchcraft in Scotland*, p. 147.

§ Sinclair: *Satan's Invisible World Discovered*, p. 262.

|| Reg. Scot.: *Discoverie of Witchcraft*, Bk. III, ch. 2. Sinistrari d'Ameno: *Demonialty*, p. 27.

¶ See, amongst others, the account of Mary Johnson (Essex, 1645), who was accused of poisoning two children. The symptoms suggest strychnine. Howell: *State Trials*, IV, 844, 846.

** Reg. Scot., *op. cit.*, Bk. iii, ch 1.

child after Guibourg had celebrated the mass for Madame de Montespan, the method being probably that described by Scot. A variant occurs in both France and Scotland, and is interesting as throwing light on the reasons for some of the savage rites of the witches: "Pour ne confesser jamais le secret de l'escole, on faict
 " au sabbat vne paste de millet noir, avec de la poudre du foye de quelque enfant
 " non baptisé qu'on faict secher, puis meslant cette poudre avec ladiete paste, elle a
 " cette vertu de taciturnité: si bien que qui en mange ne confesse jamais."* At Forfar, in 1661, Helen Guthrie and four others exhumed the body of an unbaptised infant, which was buried in the churchyard near the south-east door of the church, "and took several pieces thereof, as the feet, hands, a part of the head, and a part
 " of the buttock, and they made a pie thereof that they might eat of it, that by
 " this means they might never make a confession (as they thought) of their witch-
 " crafts."† Here the idea of sympathetic magic is very clear; by eating the flesh of a child who had never spoken articulate words, the witches' own tongues would be unable to articulate.

M. A. MURRAY.

REVIEWS.

Indian Antiquities.

Cousens: Longhurst.

Bijāpūr and its Architectural Remains, with an Historical Outline of the **35**
ʿĀdil Shāhi Dynasty. By Henry Cousens. 4to. 132 pp., cxviii Plates,
 28 Illustrations. Bombay: Government Central Press. 1916. Price 3l. 1s. 6d.

Hampi Ruins Described and Illustrated. By A. H. Longhurst. Medium 8vo.
 144 pp., 69 Illustrations. Madras: Government Press. 1917. Price, 3 rupees.

These reports, issued by the Archaeological Survey of India, describe the remains of two great cities in southern India.

The region included in the kingdom of Bijāpūr was occupied from an early period by Hindu dynasties, the last of which, that of the Deogiri Yādavas, fell before the assault of the Musalmān Alāu-d-dīn Khilji in A.D. 1294. In the middle of the fifteenth century a new State was founded by a Turkish adventurer, Yūsuf ʿĀdil Shāh, who died in 1511. After the short reigns of three worthless princes, ʿAlī ʿĀdil Shāh reigned from 1557 to 1579. The last notable figure in the family was that of the heroic queen, Chānd Bibi, familiar to readers of the novel of Meadows Taylor. The State fell into decay owing to pressure from the Marāthas and the Mughals, and its independent existence ended with the capture of the city by the Emperor Aurangzeb in 1686. The Marāthas, in their usual fashion, pillaged the city, and stripped the buildings of any wood and metal work which could be removed. The site became covered with jungle, and little was known of it till recent times. In 1885 the headquarters of the British District of Bijāpūr were removed from Kalādgi to the ancient capital, and some of the buildings were utilised for public purposes. In this process of conversion much damage was done; but in more recent years a scheme of restoration has been carried out, and Mr. Cousens, who has been for many years engaged on the work, has now completed a survey and compiled this fine monograph. The Bombay Press deserves much credit for the excellence of the typography and illustrations.

All who are interested in Indian art and architecture must consult this volume. When Yūsuf ʿĀdil Shāh commenced to build his new city he seems to have found little but a few huts on the site. The mosques, tombs, and palaces built by the reigning family were erected by Musalmān architects, who drew their inspiration from Persia and Mughal India; but they utilised the native workmen and their methods. The type of arch which they are said to have invented was really

* De Lancre: *Tableau*, p. 128.

† Kinloch and Baxter: *Reliquiæ Antiquæ Scotiæ*, p. 121.

borrowed from northern India, but their style was deeply influenced by the environment. They were specially skilled in the use of concrete, and their hanging vaults are still a marvel to the engineers of our day. The most beautiful buildings which survive in spite of ill-treatment and neglect are the Ibrāhīm Rauza, the tomb of Ibrāhīm Shāh II; the Gol Gambaz or "Round Dome," which covers the remains of Muhammad 'Alī Shāh II, the vault of which is rivalled only by that of the Pantheon; the Anand and Asār Mahalls, the latter containing two hairs from the beard of the Prophet; the Mehtar Mahall and the Sāt Manzil. A ghastly record of ancient cruelties is the great baobab tree which was the scene of constant executions. Mr. Cousens gives a good account of the famous old guns at Bijāpur. One piece, known as Malik-i-Maidān, "Monarch of the Field," was cast in 1549; it is 14 feet 4 inches long, the bore at the muzzle 2 feet 4 inches, the weight about 55 tons. The Lānda Qassāb, another howitzer, weighs 47 tons.

Mr. Longhurst in his account of the Hampi ruins describes the site of the great Hindu city of Vijayanagar, "City of Victory," which is also the meaning of the name of Bijāpur. It dates from 1336, and for two-and-a-half centuries its rulers gallantly opposed the southward progress of the Musalmāns. Its last ruler, Rāma Rāja, treated his hereditary enemies with haughty insolence, and this led to his being attacked by a confederacy of the Musalmān Sultāns of southern India, among whom the leading spirit was 'Alī 'Adil Shāh of Bijāpur. The Hindu monarch was defeated at the battle of Tālikota in 1565. He was captured, slain in cold blood, and his capital was sacked and destroyed with a thoroughness which recalls German methods. The Jāmi' Masjid, the great mosque at Bijāpur, was erected from the spoils as a memorial of the victory.

Numbers of images, carvings, and inscriptions, cut in the hard granite of the locality, much more durable than the trap rock of Bijāpur, survive; but the superstructure of most of the buildings was of wood, and now only the massive platforms remain. The most interesting relics are the waterworks which supplied the city.

Mr. Longhurst gives an adequate account of all that is to be seen, but his report is naturally much less interesting than that of Mr. Cousens. He has wasted space in attempting to compile a sort of manual of Hinduism, mostly derived from well-known printed sources. This was foreign to his task as an archæologist, presents few features of interest, and in some cases the work of previous writers has not been adequately acknowledged.

W. CROOKE.

Africa, West: Linguistics.

Sumner.

A Handbook of the Mende Language. By the Rev. A. T. Sumner, B.A. 36
(Assistant Principal, Albert Academy, Freetown, Sierra Leone, West Africa).
Freetown: Government Printing Office. 1917.

The present work is designed to provide convenient material for the study of one of the most important languages in the Sierra Leone Protectorate. Such a work is necessary for practical purposes, as most of the published material consists of formal grammar and vocabulary beyond the requirements of the beginner. Though similar in purpose, Mr. Sumner's book appears more elementary than that of Migeod. The *Handbook* contains an introductory part dealing with pronunciation and euphonic changes, and forty-three graduated lessons each consisting of models, rules, vocabulary, and exercise. Then follow twenty-three pages of reading lessons, with a Mende-English and English-Mende vocabulary of sixty-three pages.

Mr. Sumner's book is a useful and helpful aid to the acquisition of a sound knowledge of the Mende language.

SIDNEY H. RAY.

India: Archæology.

Yazdani.

Megaliths of the Deccan—A New Feature of them. By Ghulam Yazdani, M.A., Superintendent of Archæology, Hyderabad.

37

We have received the *Journal of the Hyderabad Archæological Society* for 1917, which is quite up to the mark of that for 1916 (noticed in MAN, 1917, 107). As in that predecessor, the article of most interest to the anthropologist is in reference to the megalithic remains of the Deccan, or rather to marks found on the pottery discovered in them. A plate is given containing 131 varieties of these marks, some of which are very complicated, while others are quite simple, and therefore naturally resemble those found in other and far distant places.

An article on "Garla and its Remains," by T. Strinivas, gives (amongst other particulars) an account of what is virtually a megalithic temple, "the walls being double throughout, the inner ones in the shrines and ante-chambers being built of large blocks of stone laid horizontally. . . . The whole structure is erected without mortar, the joints being carefully fitted."

In another article on the foundation and growth of the City of Hyderabad, by P. A. Bhaunani, C.E., mention is made (on the authority of Tavernier) of a stone in the Mecca Masjid in that city "of such prodigious bulk that it was five years before five or six hundred men continually engaged could cut it out of its place; they were also to roll it along upon an engine with wheels, upon which they brought it to the Pagod, and several affirmed to me that there were 1,400 oxen to draw it." This was in the time of the Emperor Aurungzebe. A. L. L.

ANTHROPOLOGICAL NOTE.

In 1915 the University College of Wales, Aberystwyth, became the possessors of the library and life-long collections of the late F. W. Rudler, who was Professor and Dean of the College in the years 1876-80, and subsequently Curator of the Museum of Practical Geology, Jermyn Street, London. (For Obituary and portrait see MAN for March, 1915, p. 33.)

38

His library, consisting of some 2,000 volumes and 4,000 pamphlets, has been tabulated and cross-indexed, and his extensive collection of rocks, fossils, &c., carefully labelled. The mineralogical collection has been made available for teaching and demonstration purposes, while the archæological and other specimens have been added to the College Museum.

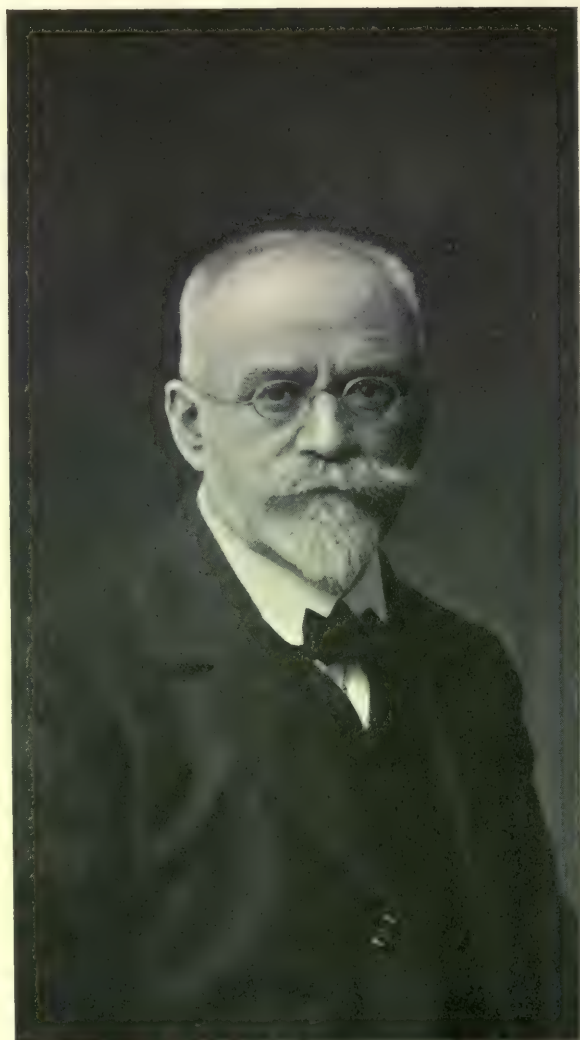
The additions thus made to the College collections, further assisted by the foundation of the "F. W. Rudler Geological Research Scholarship," have greatly increased the facilities for research work, particularly in the subject of geology.

Monsieur Jules Benaerts, the eminent Belgian sculptor (of the Royal Academy of Brussels), has executed a life-size medallion of Professor Rudler, which has been framed in oak and placed in the wall of the College quadrangle, and below it a brass tablet (executed by Messrs. G. Maile and Son, of Euston Road, London), bearing the inscription, "In memory of F. W. Rudler, I.S.O., F.G.S., 1840-1915, Professor in this College, 1876-80, and Founder of the College Museum," has been affixed to a polished slab of Welsh marble specially cut for the purpose from the Narberth Quarries, Pembrokeshire.

Professor Rudler's numerous friends, and all concerned in the welfare of the College, will be pleased to know that the collections which he formed with so much ability have thus been made available for the furtherance of those studies in which he was so deeply interested, and to which he devoted the labours of a lifetime.

On behalf of the College,

S. G. RUDLER (One of the Governors).



JOSEPH DENIKER.

ORIGINAL ARTICLES.

Obituary.

With Plate E.

Keith: Haddon.

Dr. Joseph Deniker. By Arthur Keith, M.D., F.R.S., and A. C. Haddon, Sc.D., F.R.S. 39

It is with much regret that we record the death of Dr. Joseph Deniker on March 18th, 1918, in the sixty-seventh year of his age. He was born in Astrakan, Russia, in 1852, studying first in Petrograd and afterwards at the University of Paris, where he was awarded his Doctorate in Science in 1886. In Paris he studied under Broca, M. de Lacaze-Duthiers, Topinard, and other distinguished French anthropologists, and in due time became himself a leader in the Parisian School of Anthropology—the centre of anthropological research. From the beginning to the end of his strenuous life he was a student of Human Races, an Ethnologist, yet it was as an anatomist, by his important contribution to our knowledge of the anthropoid apes, that he first won for himself an international reputation. The authorities of the Natural History Museum in Paris had entrusted him with the examination of two rare specimens—one the foetus of a gorilla at the fifth or sixth month of gestation, and the other a foetal gibbon about full time. These Deniker made the subject of an exhaustive study, the results of which are embodied in his “Recherches Anatomiques et Embryologiques sur les Singes Anthropoïdes,” which appeared in 1885 (*Arch. Zool. Exper.*, 1885, Series II—III, pp. 265, 8 Plates). His monograph is an example of how such studies should be recorded—clear, exact, and detailed, and yet done with a perspective which will have a permanent value. He found that all the essential characters of the gorilla were already marked in the foetus; the crowd of brutal features, which make the adult animal so unlike man in outward appearance, began to appear with the eruption of the first permanent molar teeth. His research led him to support Huxley's dictum that the structural differences which separate man from the anthropoid apes were not greater than those which separate the anthropoids from monkeys. I may quote here a note I wrote to an “Introduction to the Study of the Anthropoid Apes,” published originally in *Natural Science* (1896, Vol. IX): “Deniker's is the best work upon the Gorilla.” In conjunction with Dr. Boulart he wrote a paper on the laryngeal air sacs of anthropoid apes (*Journ. Anat. et Physiol.*, 1886, Vol. 22, p. 51); his investigations into the age transformation of the gorilla's skull appeared in 1885 (*Bull. Soc. d'Anthrop.*, 1885, p. 703). So far as I know these are all the contributions made to the anatomical side of Anthropology. He was, as I have already said, an Ethnologist, and in this rôle his studies include peoples inhabiting all parts of both the Old and the New World. From 1880 onwards he systematically collected data relating to the physical characters of races and peoples, and by the end of the century was in a position to commence the great task of his life—the classification of Human Races. At an early point of his career he realised that a classification founded on a single character—such as the shape of the cranium—could never give a natural classification of races. All the physical characters of the body—stature, proportion of limb and trunk, pigmentation, hair-texture, anatomical features, &c.—had to be used as a basis.

In 1889 appeared his first essay on classification, but it took him ten years more before his knowledge was ripe enough for publication in book-form. In 1900 appeared in the *Contemporary Scientific Series*, under the editorship of Havelock Ellis, that condensed compendium of ethnology—*The Races of Man*. In that work he came to the conclusion that we must recognise at least twenty-nine racial elements in the world's population. While his investigations included the world's population his attention was centred more directly on the racial elements to be found amongst the peoples of Europe. At the same time as Dr. J. Deniker was collecting data bearing on the ethnology of Europe in Paris, Dr. Wm. Z. Ripley, of Columbia

University, was engaged on a similar task in New York. Dr. Ripley, using head form as his chief guide, came to the conclusion that Europeans were compounded from three racial stocks; Deniker recognised six races, with four subsidiary or sub-races—ten all told. Ripley's classification has the merit of simplicity, but time will show that Deniker's comes nearest the truth. Deniker had the advantage of a training which qualified him to estimate the relative value of anatomical structures as "counters" in classification. No modern student can afford to remain ignorant of Deniker's *Les Races de l'Europe* any more than of Ripley's *The Races of Europe*. Both authors have taken enormous pains to collect all available data and to arrange their collections in an exact and systematic manner. Deniker, in his happy position of chief librarian to the Natural History Museum in Paris, used his opportunities with great success. In 1910 he issued in the *Bulletin de la Société d'Anthropologie*, his collected data bearing on the pigmentation of European peoples. He acted as secretary for France in the compilation of the *Catalogue of Scientific Literature*. His interests were wide and varied—in books as well as in men, in Social Science as much as in Anthropology and Geography. He was Chevalier de la Légion d'Honneur, Doctor of Laws of the University of Aberdeen, he served as president of the Société d'Anthropologie, of the Société de Géographie, of the Association des Bibliothécaires Universitaires, and of the Société pour la propagation des Langues étrangères in France. In 1904 the Royal Anthropological Institute of Great Britain invited him to give the Huxley Memorial Lecture—the highest honour at its disposal. He was elected an Honorary Fellow of our Institute in 1895. Dr. Deniker died at 36, Rue Geoffroy, Saint-Hilaire, Paris, which had long been his home, where he leaves a sorrowing widow and family.

A. KEITH.

I am pleased to have the opportunity of acknowledging my appreciation of the ethnological investigations and publications of my friend Joseph Deniker, whose recent death we all deplore. He was always ready to help others, and I have a pleasant recollection of visiting him in his house in the Jardin des Plantes, which he stated with justifiable pride was the one once occupied by Buffon.

Being chief librarian of the National Museum of Natural History in Paris, Dr. Deniker had an expert knowledge of bibliography and access to a first-class library, so it is not surprising that he had a remarkably wide knowledge of the literature of physical and cultural anthropology, as well as of that of other sciences. He was in daily contact with the professors and staffs of the various departments that cluster around the Jardin des Plantes, and, equally naturally, he made the acquaintance of many serious travellers and field-workers. He thus had exceptional facilities for learning about all the investigations that were being made in the natural sciences, and of these he made full use, as is indicated by the diversity of his publications, of which only a very few can here be alluded to. Further, he investigated natives from many parts of the world who have been exhibited in Paris. These circumstances explain how he has been able to write about the anatomy of the orang-utan, the embryology of anthropoid apes, and give useful papers on the Chukchi, Kalmuk, Giliak, Turki, Tatar, Carib, Fuegian, tribes of Senegal and Dahomy, Hamites, Hottentot, Pygmy, not to mention many other peoples. On account of his general and bibliographical knowledge, he was invited to collaborate with Dr. P. Hyades in the production of the seventh volume—"Anthropologie, Ethnographie" of the *Mission scientifique du Cap Horn*, 1882-83; Paris, 1891. This is acknowledged to be "the most important extant study of Yahgan anthropology . . . and earlier "writers may be safely neglected." His painstaking researches on the races and peoples of Europe have been universally recognised as masterly productions, and as a token of the esteem with which he was held in this country, our Institute invited

him to deliver the Huxley Lecture for 1904, and awarded to him the Huxley medal (*Journ. Anthr. Inst.*, XXXIV, p. 181).

His book, *The Races of Man: an Outline of Anthropology and Ethnography* (London: 1900), still remains the best systematic introduction to the science of Man, in which a mass of information is imparted clearly and succinctly; adequate references are given, and there are numerous excellent illustrations. A good example of the breadth and depth of Dr. Deniker's studies will be found in his introduction to *The Gods of Northern Buddhism*, by Alice Getty (Oxford: 1914), which is a most valuable general survey of Buddhism, in which he deals with: Buddha; the teaching, its propagation and modifications; the expansion of Buddhism; the religious community; a short survey of Buddhist art; and convents, temples, and sacred images. Finally, as an example of his bibliographical labours, mention may be made of his *Bibliographie des travaux scientifiques (sciences mathématiques, physiques, et naturelles) publiés par les sociétés savantes de la France depuis l'origine jusqu'en 1888*. I. Ain-Orne (Paris, Imprimerie nationale: 1916). The laborious character of this useful work can be gauged by the fact that it contains 16,194 entries, and doubtless the remaining portion was well in hand.

British Anthropologists offer to their colleagues in a sorely-trying country, at a moment fateful in history, their heartfelt sympathy on the loss of a diligent and erudite student, whose name will retain a high place in the history of our science.

ALFRED C. HADDON.

Malta: Geology.

The Maltese Cart Ruts. By Captain E. G. Fenton, R.A.M.C.

Fenton.

40

Malta as it exists to-day might be looked upon as having attained almost as high a degree of agricultural development as it is possible for any small state to attain, considering its situation and its present rather unfavourable climatic conditions. I said almost, for, although most of the island is subdivided by stone walls into thousands of little fields which are cultivated throughout like kitchen gardens, yet there are to be seen here and there small barren patches where the original bedrock shows on the surface in its old-time nakedness. In fact, we might say that the Maltese take as much as it is possible to take out of the parts of the island which are under cultivation, and are, as far as their means allow them, slowly reclaiming the uncultivated bare areas.

History relates that some five or six centuries ago a large portion of the surface of Malta was naked and uncultivated, and that for some considerable time after the occupation of the island by the Knights (A.D. 1520), the inhabitants regularly imported thousands of shiploads of earth, and spread it over the ground to make a skin of soil for cultivation. The inhabitants of Malta are by nature very industrious, and the conditions of peace which they have enjoyed since the occupation of the island, first by the Knights and afterwards by the British, have enabled them to bring their little state to a condition of agricultural perfection which, considering all the adverse circumstances of climate, distance from markets, etc., with which they have to contend, might be regarded as model.

For one half of the year, from May to November, practically no rain falls on Malta, and although during the other half year there is a fair average rainfall, yet the desiccating action of the summer so predominates over the winter rains that if it were not for the number of sheltering stone walls which are erected all over the island, and the artificial watering carried on by the natives, Malta would soon be reduced to the semi-barren rock condition which it was in some centuries ago. This condition of affairs is characteristic of many parts of the littoral of the Mediterranean, and it is a curious fact that although there is, as a rule, in most places a fair total

annual rainfall, the conditions found are of arid, dried-up countries. A rainfall of 25 or even 30 inches does not seem to help a country if it all falls in one short season and leaves the land parched for the rest of the year.

The stone walls, then, and the artificial watering, are the preservation of Malta, and these could only be carried out in a country protected from plunder and pillage. Let us now visit some of the barren patches alluded to as existing here and there

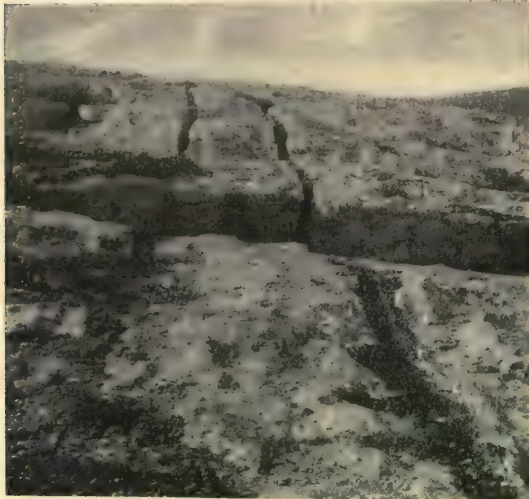


FIG. 1.—CART RUTS TO THE NORTH OF DWEIRA, ON THE WAY FROM NAXXAR TO ST. PAUL'S BAY.

over the island, and we shall be surprised to see what seem to be peculiar cart ruts cut in the hard rock. Fig. 1, from a photograph kindly given me by Professor Zammit, shows these ruts. They always, as we see there, run in parallel pairs, and are cut to a depth of anything from a few inches up to 2 feet or more. In this photograph the ruts are seen cut in the coralline crag which covers a great part of the higher levels of Malta. This coralline crag is a fairly hard rock, and the amount of traffic necessary to cut the rocks shown in the illustration must have been considerable, and prolonged for a good period. Professor Zammit informs me that these

ruts are found in abundance all over the island, and I have seen them myself in many places, so we must conclude that at one time there was an extensive amount of carting carried on in Malta.

Various writers have mentioned the Maltese cart ruts, and it has been generally assumed that they date from prehistoric times, and might even belong to the Neolithic period, and I may state here that Professor Zammit, who is the greatest living authority on the archæology of Malta, holds the view that they are of Neolithic origin. During the autumn and winter of 1916 I was enabled to visit Malta on various occasions, and once I lived a fortnight on the island. During these visits I made a detailed study as far as I could of the cart ruts, and I will give as concisely as I can the results of my work on them. I found that they often branched and came together again in a way which suggested a modern railway junction. They varied considerably in depth, and passing down the face of a hill I found they zig-zagged, always choosing a moderate gradient.

I also found in this place other pairs of ruts running independently of the first, also passing over the side of the hill and following practically the same direction. These latter were only a few yards from the former, and it would



[Photo, T. Zammit]

FIG. 2.—DEEP PREHISTORIC CART RUTS ON THE SELMEIN PLATEAU.

seem that when one pair of ruts became worn too deep another track was started.

I found that in no place was there any sign of a groove cut by horses' feet between the ruts, but the space between them was rough, hummocky, and showed no signs whatever of wearing.

Now in Patagonia, where I lived for several years, I noticed that on the tracks made on the pampas by bullock carts there was no wearing down between the wheels, as the bullocks walk in the ruts made by the wheels. In the case of Malta, however, no bullock could walk in the ruts, as they are too narrow, too clean cut, and too deep to afford a footing to any animal.

An average rut will be found to be about 3 inches wide at the bottom, and, with the sides sloping apart slightly, will be about 8 or 9 inches wide at the top. From this we are driven to conclude that the motive power which propelled the vehicles which cut the ruts was something other than horses walking between the shafts, or bullocks walking at the side.

And the only power we can think of is human power, in the shape of a number of men drawing waggons. It has been suggested to me that the vehicles which passed over these ruts had runners and not wheels, but as I found that the floor of the ruts is, as a rule, very undulatory, and that the individual undulations are often very short and sharp, I concluded that this suggestion must be negatived. This undulatory condition of the floor of the ruts, coupled with the fact that the ruts are often very deep, and that the space between them is generally very hummocky and rough, led me to believe that the Maltese cart ruts were cut by vehicles having high, strong wheels. I noticed then that most of the Maltese carts have high wheels, and on one occasion I measured a typical one. I found the diameter of the wheel was 5 ft. 4 in., and the distance from the outside of the tyre of one wheel to the corresponding point on the other was 4 ft. 8 in.

I then went along to one of the cart rut areas and measured some of the ruts, and I found that in a typical place the distance between the points corresponding to the outside of the tyres was 4 ft. 9 in. The inside distance was 4 ft. 4 in. From this it would seem that the ruts were made by vehicles with wheels much the same size as the present-day Maltese carts and with axles the same length. In one place I found a modern track joining an old pair of ruts, and the modern wheels seemed to fit the old tracks perfectly. This fact would lead us to believe that the ruts possess no real antiquity, but were formed on the island a century or so back, before macadamised roads came into use. If, however, the reader were to take the trouble to go over a number of the bare cart rut areas and study these old tracks carefully, I think he would be convinced that, notwithstanding the above-mentioned fact, the ruts have no stamp of modernity.

The patination of the surface, the fact that they are often worn away and obliterated in places, to reappear again a little further along, impress the observer with the fact of their age.

But in addition to these there are other facts even more convincing.

One day down at Marsa Sirocco I noticed a pair of ruts running out into the sea, and I could trace them some distance under the water. This points to some antiquity, as a subsidence of this portion of the island must have occurred since they were formed. I am told by Professor Zammit that they are often seen running into the sea in other parts of the island also; if so, the subsidence must have been general and not local, and consequently argues a greater antiquity still. As far as I could find out, since Valetta harbour first began to be used to the present day there has been no noticeable alteration in the level of the land round about it. But to me, one of the strongest bits of evidence of the great antiquity of these cart ruts is the

fact that in some places where they are found cut in the coralline crag, the surface is so rough, jagged, and hummocky, that no living creatures, human or otherwise, could possibly maintain a footing if dragging a heavy load behind them. And I have found considerable lengths of ruts cut deeply through the roughest of this crag.

Sitting out on the island one evening I came to the conclusion that these roads were in use at a time when Malta was covered with a rich soft soil, for I could not imagine a few centuries ago, when earth in all forms was a very valuable commodity, that the natives would use it simply for roadmaking, especially when you think that such material would have to be renewed every year, as, being constantly broken up by the traffic, it would be blown away by every wind into the sea. Then again, if macadam was used some trace of the broken stones would have remained to the present day, but I have never seen any sign whatever of same. I conclude from this that the Maltese cart ruts were cut by wheeled vehicles in some former time when the climate of this portion of the Mediterranean was moister and more salubrious than it is at present.

It has been stated by Bradley, in his book on *Malta and the Mediterranean Race*, that the cart ruts disappear over the cliffs on the south side of the island and reappear again on the Island of Filfla, 3 miles out to sea. Now this island is only a small rock a hundred yards or so across, and its sides are precipitous all round. The channel between it and the main land is deep, and large steamers can pass between. So if cart ruts disappear over the cliff on the south side and reappear again on Filfla it would be absolute proof of the antiquity of the cart ruts.

I asked Professor Zammit if this were the case, and he told me that although he had visited Filfla on several occasions, he had never seen the ruts on its surface, but as it had been used as a target constantly during the last thirty years by the naval people, most of the original surface had been broken away. I myself walked several miles along the cliffs on the south side of Malta, and although I saw typical ruts in more than one place I never saw any of them actually running over the edge. On many parts of Malta, and to a much greater extent on Gozo, there are abundant megalithic remains belonging to the dolmen period or latter half of the Neolithic. I have endeavoured to find if there was any connection between these remains and the cart ruts, but the evidence seems to prove that there was none. The ruts in no way converge towards the megalithic remains, and in the neighbourhood of the latter the ruts are often scarce. The abundance and size of these megalithic remains, and the magnificent workmanship displayed in the rock-hewn temples, shows that at the close of the Neolithic period Malta must have had a fairly moist climate and was capable of sustaining a fairly large population. Recent geological study has shown that after the ice of the Würm age had retreated there were several minor oscillations of climate, such as the turbarian and forrestian described by Geikie, and it is quite possible that these oscillations extended well into historic times, and even into the Iron Age, for it is impossible to think that the enormous climatic disturbances which took place during the Ice Age could have subsided suddenly without leaving some minor pulsations behind. If so, it is quite possible that between two and three thousand years ago Malta was much moister and a more salubrious country than it is at present.

All over Malta there is evidence of a former higher rainfall, in the shape of deep dried up river valleys, cut often for hundreds of feet in the solid rock. Small streams still run down these valleys when there is heavy rain, but even after the most violent storms the rivers are so insignificant that they are incapable of tearing up the bushes and shrubs which can be seen growing across the bottoms of the valleys from side to side, and we may conclude that there is no perceptible deepening of the river valleys at present.

It is consequently possible that as fluctuation of climate in former times was the rule, that the Neolithic civilisation was brought to a close by a period of desiccation, and that the dawn of our Mediterranean historical period was heralded in by a change to the moist again. This change was productive of "the glory that was Greece and the grandeur that was Rome," and it has been followed by another period of semi-desiccation, and it is in that period we now live.

If these views are correct they will explain to some extent why the centre of gravity of European civilisation has worked its way north during the last thousand years.

In conclusion, then, we may say that although the Maltese cart ruts do not date from neolithic times, they probably took their origin in the early part of the Iron Age, at a time when the climate of that part of the Mediterranean was moister and more calculated to support a large population on the island than would the present conditions.

A number of people drawing repeatedly a heavy waggon argues one thing to me, and that is slavery, and to have slavery you must have a fairly large population. When the population is small and the people sparsely distributed, you will never find slavery, and a large population indicates favourable conditions for living; among these a genial, moist climate will figure largely, and if historians would study a little more the question of the climate which prevailed in former ages, they would probably find that from that source they would have a considerable amount of light thrown on the beginnings and endings of empires and nations.

The above was written after my return from the Mediterranean in the end of 1916. Since then I have spent nine months in Egypt and further east. When in Egypt I consulted Mr. Quibell, of the Cairo Museum, and Dr. Hane, Director of Geological Survey of Egypt, relative to a possible change of climate during historic times, and they both stated that they have no evidence of any such change since the 1st Dynasty in Egypt, but they do not negative the possibility.

I myself, from reading Egyptian history, thought I could trace evidence of altered climatic conditions of the surrounding countries producing large populations resulting in invasions of Egypt, such as the Hyksos invasion (14th to 17th Dynasty), and subsequent invasions by Libyans. However, on coming home I talked the matter over with Professor Cole, and he advised me to get *The Pulse of Asia*, by Ellsworth Huntingdon. I did so, and I cannot too strongly urge all students of history and climate to carefully read that excellent book. I need not detail here the evidence he produces to show that the climate of Western and Central Asia has altered many times during known history, suffice it that he believes an alteration to the moist occurred about the sixth and seventh centuries of the Christian era. That period would correspond with the wave of Islamism which started in the Arabian Peninsula, and which is now believed to be the fourth Semitic wave which took origin in the same locality. I may here mention that Leonard W. King in *A History of Babylonia and Assyria*, Vol. II, p. 119, after mentioning that the Semitis originated in some part of the Arabian Peninsula, goes on to state that there were probably four waves of Semitic advance, and seems to think that each was preceded by an alteration to the moist in the climate of Arabia. He concludes as follows: "To such climatic changes, which seem, according to the latest theories, to occur in regular cycles, we may probably trace the great racial migrations from Central Arabia, which have given their inhabitants to so many countries of Western Asia and North Africa." The Hyksos invasion of Egypt, and the great wave of Islamism, he includes in the same, and he would have it that consequently in the seventh century of our era the climate of Arabia once more altered to the moist.

It is quite possible that the Maltese cart ruts date from this latter period. The present Maltese carts are probably of an archæan type; I have seen the same type in Egypt and in Italy, and I have seen similar cart ruts in the streets of Pompeii. Professor Cole has suggested that as Malta stands on a shallow platform it once was a much bigger island than at present, and possibly with a moist climate supported a large population.

Before concluding I will mention that Professor Zammit has suggested that the "ruts" were cut first by men in the rock so as to make a track for the wheels. I cannot agree with this idea, for in many places I saw ruts cut a few inches deep, and then the wheels had shifted and cut another rut parallel to the first and only a few inches away from it, and between the two sets often could be seen a narrow flange of stone standing up. A large lumbering waggon with big wheels would easily shift its course when being dragged along, and cut new ruts alongside of the old. Such a condition is of common occurrence, and in some places two or three parallel ruts can be found, all more or less shallow. With regard to the age of the ruts, I think it will be conceded that if they were cut by large, heavy wheels, 5 to 6 feet in diameter, those wheels must have been shod with iron, and on consulting with an eminent Egyptologist, I find that although small pieces of iron have been found in the remains of the early dynasties, iron was not in common use till 600 B.C. From this it would appear that the Maltese cart ruts date either from Roman times or since then, and I think that the early middle ages is the most likely period.

NOTE.

Huntingdon traces a high fluvial period before the Christian era, falling then to an interfluvial dry period from 400 to 600 A.D., during which the conditions were dryer than the present day. This latter, after 600 A.D., was in turn followed by a moist period, which possibly oscillated to dry again during the centuries 1,000 to 1,200, and again became moist in the later Middle Ages. The interfluvial period, 400 to 600 A.D., would probably be the cause of the Decline and Fall of the Roman Empire, and the consequent drifting of power to the north. The cart ruts were possibly formed during Roman times.

E. G. FENTON.

Africa, Central: Canoes.

Torday.

Outrigger Canoes in the Congo. *By E. Torday.*

41

Among my notes, the publication of which has been delayed by the war (there are two volumes of them in the printer's hands—in Brussels), there is one referring to outriggers observed in the Congo by Captain Hilton Simpson and myself; Dr. Haddon's paper on "The Outrigger Canoe of East Africa" seems to make it imperative that I should mention it now. In a Baboma village, situated on the Kasai river, two days' navigation above the mouth of the Kwilu, we saw some dug-outs transporting some enormous nets to the fishing ground. The nets were stretched between sticks and carried upright, not unlike sails; to counterbalance their weight the canoes were provided with outriggers on one side; these were not improvised, but specially carved for the purpose. We photographed them, but the plates unfortunately perished on their way to Europe. It is, however, possible that Professor Starr, of Chicago, who visited the same region, may possess photographs of them, but this may depend on the season when he travelled there, as fishing with nets of this kind is not practised all the year round. I was also told by the natives that they manufactured canoes of wickerwork covered with hide, and that Professor Starr was fortunate enough to purchase one of these. I suppose these "canoes" were simply outriggers. The Baboma are frequently mistaken for Basongo Meno, the inhabitants of the other bank of the river.

E. TORDAY.

Art.

Read.

The Registration of Works of Art in Occupied Countries. By **42***Sir C. Hercules Read.*

A note under the above heading appears in the March number of *The Burlington Magazine*, signed by Mr. More Adey. In such a magazine the reference is naturally to ancient or mediæval works of art of European origin, but Mr. Adey's sympathies are wide enough to make an appeal to the readers of MAN, whose interests are mainly anthropological.

Mr. Adey cites first a manifesto issued through the notorious Wolff Bureau, stating that, "Although the Higher German Command did all in its power during " the march through Belgium to collect the art treasures of the occupied territories " and preserve them from destruction," the German "Kunstwissenschaft" is going yet further and will draw up an inventory of all art treasures in Belgium and photograph them, to promote the study of art. The *Informations Belges* makes a caustic reply to this naive statement of these protectors of Belgian monuments in terms that can well be imagined. There is, however, a most practical side to the matter, as Mr. Adey points out, and we might here, as in other cases, learn from the enemy. His words are quite to the point and may as well be quoted: "There are plenty of both " officers and men in Palestine, Mesopotamia, and the less explored frontiers of " Egypt, well able to use initial discrimination in registering works of art and " to preserve them when found. Nor ought any objects of primitive Negro art " which German Kunstforschers have missed, to be overlooked by our troops in the " occupied portions—now almost the whole of German Africa. Several of the popular " books on the African campaign by those who took part in it show excellent faculties " for general observation, and the writers' faculties should be utilised in that direction. " Moreover, we already owe much knowledge of Negro art to the independent action " of intelligent officials before the war."

Mr. Adey's suggestion is practical and opportune, and there would not only be no serious difficulty in putting it into practice, but I am very sure that a large proportion of both officers and men of our forces now in Africa would welcome so intelligent a diversion from the routine of field or camp life. The only danger that I foresee is lest some disciplinarian in a high place should promptly condemn the scheme as non-military and a waste of time. To avoid this it would be desirable to obtain a fiat from the powers at home, commending it as a means of putting the leisure of the soldiers to an intelligent use. To discover exactly how all this should be attained, in these days of multitudinous Commissions, would probably be difficult, though it should be possible. But that it is worth doing, and is, in fact, akin to a duty, will, I think, hardly be denied.

C. HERCULES READ.

Ibo: Folk-tales.

Thomas.

Stories (Abstract) from the Awka Neighbourhood (IV). By N. **43***W. Thomas.*

13. NKENU AND OKWOLI.

Nkenu* and Okwoli were good friends. Nkenu went to Okwoli's home, and *vice versa*. Okwoli collected fish at the waterside. The wife of Nkenu went to Okwoli's house. Okwoli's wife was cooking soup. She put half the fish in it, and gave it to Nkenu's wife, who wanted fire. Nkenu's wife said her husband was (useless) foolish, he could not catch big fish. Nkenu's wife went back. Nkenu had some small fish, and his wife abused him. He said he would try to catch big fish, and asked Okwoli to go with him. Okwoli called Nkenu to come, and said

* Nkenu, a small bird.

he was to watch on the tree in the middle of the river, and catch any big fish he saw.

Okwoli caught many fish. Ájã came. Nkenu flew at it, jumped on its head, and caught its eyes. The fish dived. Okwoli could not see it when he came out. By and by Nkenu and the fish came out. Nkenu called Okwoli. Okwoli carried the fish and Nkenu out. Nkenu's wife came and asked Okwoli where the fish was that her husband had killed. His wife said, "Oh, I don't believe he has killed any "big fish, or at any rate not many." Nkenu could not speak for water. His wife cut the fish in two and took half at a time.

When Okwoli was ready to go, Nkenu could not fly, and Okwoli tied him to his back.

Cuku told the animals, "A small bird shall kill small fish, and a big bird big fish."

14. THE OLD WOMAN.

An old woman going to market came to an open space, and met two young men sharpening arrows. They asked where she was going. The young men said, "When you come back wait, or, if we come first, we will wait, and take you "home to our place." She found them there and they took her, and cooked good food and soup. "If you know our names," they said, "eat; if not, don't." "I "don't know your names," she said, so they said, "Go home." "Lead me to the open space," she replied. "If you don't know the way, sleep here," they said, "night is coming, to-morrow we will lead you." The young men then eat the food.

At daybreak they took a sherd, gave it to the woman and told her to fetch fire; "And then we will cook chop and lead you to the place." She went out and met another old woman. This old woman ate koko yams and yams. She gave the first old woman a head of yams, and she swallowed it at once, then a head of koko yams, and she swallowed that at once. The second old woman gave her heads, saying, "Have you eaten for four days?" "No," the other replied, "I "reached an open place," and then she told her the whole story. The second old woman said, "I will tell you. The first young man is called Ebwenefezumba, the second Atusiñwuluče." Then she gave her fire. The first old woman went back. The young men cooked food and soup and said, "If you know our names eat; if not don't." She told them their names. "All right, you can eat," they said. So she ate. Then the young men went out with the *alose* (opú), and asked who told the old woman their names. The second old woman came out, took the *alose* and said, "May the *alose** kill those who keep an old woman without food."

15. NKENU AND THE TORTOISE.

One day Nkenu stole the tortoise's she-goat. The tortoise caught Nkenu and said "I will sell you." Nkenu begged the tortoise, "I will buy myself free," he said. "For how much?" asked the tortoise. "£10," said Nkenu. "No," said the tortoise, "if you give me one of your children I will let you free; if not I will sell you." "I can't," said Nkenu. The tortoise sold Nkenu to the Umu čuku man for £30. Then the tortoise took the property of Nkenu and began to make a title for his people.

The beetle wanted to make *amañulu*† title, so he called the cock. When it came the beetle cooked yams and added fish and meat. The cock asked who would eat all the food. "To-day I make *amañulu*," answered the beetle. The cock danced, put his head in the fire and burnt head and comb.

The cock flew away without eating. The tortoise heard and came to steal the

* *Alose*, demigod.

† *Amañulu*, one of the "titles."

vessel of yams. The beetle saw the tortoise and chased him, but he got into the bush.

The tortoise met the elephant, which trod on its head and spoilt its eyes. The monkey saw the elephant and ran. It wanted to jump over the Ogumagana tree, but the tree said, "Don't jump on me, I shall break." So the monkey went back and tried again, but Ogumagana said, "Don't jump on me, I shall break." So the monkey jumped to escape the elephant. Ogumagana broke and the monkey fell on the bush fowl's eggs and broke them. Then the bush fowl cried, "Look where I hid myself."

16. THE TORTOISE AND THE ANTS.

The tortoise found some ripe palm nuts. He cut down the tree and one nut rolled into the ants' hole. The tortoise said he would follow it. He went to the ants' house and asked for the nut. "A boy ate it," they said. "Give me the boy," said the tortoise. They begged him and promised one goat. He said he must have the boy. The ants went inside the room and brought out *egede* (drum), beat it, got calabash *fufu* and soup and asked if he would carry *egede*. "Yes," he replied, and take a chop.

The tortoise washed and ate. He agreed to take *egede* instead of the boy; if he beat *egede* it defæcated *fufu* and soup. Then he went home.

The tortoise beat a bell and called the animals. They met and the tortoise said they should not eat for twelve days to see who was strong. They were to meet and clear a space in the morning and sit there all day. When the sun was overhead the tortoise told them he had a stranger fowl at home. "Let me go and look at it," he said. He went and beat *egede* and it defæcated *fufu* and soup. The tortoise ate for four days and all the soup and *fufu* of the *egede* were finished. On the evening of the fifth day the tortoise beat a bell and said they could eat yams, corn, etc., for they would die if they fasted twelve days.

The tortoise went to the palm nut tree. The nuts were unripe and none fell out. The tortoise rolled one into the ants' hole and went in again. The ants offered *egede*. Then he went home and beat the bell and said the animals were to fast twelve days. They met as before.

The tortoise went home and took some dry palm fibre and *ose ora* (kola pepper) and touched *egede*. Then he washed, brought water to drink, and sat down. He beat *egede* and four big *ananri* came out, beat the tortoise and went in again. The *ananri* came out again, beat him, and went in again. This happened a third time. Then the *ananri* went with *egede* to the ants' hole. One carried *egede* back to the tortoise's house. The tortoise recovered and wanted to carry *egede* out, so he lit a fire and burnt it. Then he said, "Perhaps *egede* can hide in my house." So he burnt the house and never went to the palm nut tree again.

N. W. THOMAS.

REVIEWS.

Africa.

Bates.

Varia Africana, I.—*Harvard African Studies*. Vol. I. 1917. Edited by

Oric Bates, M.A., F.R.G.S., assisted by F. H. Sterns, Ph.D.

44

We welcome the appearance of the new Harvard serial which, under the title of *Varia Africana*, is designed to consist of annual volumes dealing with African anthropology in its widest sense. Archæology is thus included, but with regard to Egyptian material the editors have wisely decided to exclude the higher manifestations of Egypt-civilization while welcoming contributions dealing with the prehistoric period and the less-developed phases of Nile culture, the latter being liberally defined

as embracing "survivals, the arts of life, religion, and language." Needless to say, only original papers are desired, but these may be of any length compatible with their publication in a volume "essentially in the nature of a journal," and may include papers of a non-controversial character dealing with the American Negro.

Varia Africana, I, consists of a dozen papers of varying length, a short selected bibliography of Africana for 1915, and Editorial notes, the whole running to close on 300 pages. The contents include papers on Siwan customs, oral surgery in Egypt during the Old Empire, the palæoliths of the Eastern Desert, the worship of the dead in Africa, the ancient speech of the Canary Islands, Nungu (Nigeria) habits and customs, Benin antiquities in the Peabody Museum, an inscription from Gebel Barkal, Darfur Gourds, the Utendi of Mwana Kuponu, Egyptian Saints, and Ancient Egyptian fishing. With such a list it is obviously impossible to discuss each paper, nevertheless some attempt must be made to indicate the most interesting features of some of the more important papers.

The paper on Siwan customs, which begins the volume, is by Dr. Mahmud Mohammad 'abd Allah, formerly medical officer at Siwa, the value of the material being greatly increased by the very full notes provided by the editor. It deals for the most part with the customs associated with the personal and domestic life of the individual, but little space being given to the regulation of public life, while the relatively short account of Sidi Sliman, the patron saint of the Oasis, emphasises the plea for the adequate and systematic study of Egyptian holy men raised by Mr. Blanchard in his paper, "Notes on Egyptian Saints." Dr. Sterns gives a careful account—accompanied by many excellent plates—of a collection of palæoliths made by Mr. G. W. Murray, of the Egyptian Survey Department, from a number of sites in the neighbourhood of the Kena-Koseir road, two of the sites being within a day's journey of the sea. Dr. Sterns compares Mr. Murray's series with the Haynes collection (in the Peabody Museum) from Luxor and other collections from the Thebaid. He notes the absence of the large hollow scrapers, "spokeshaves" as he calls them (though surely the spokeshave has a straight edge), which are found in the Thebaid, and suggests that these are local forms peculiar to the district. The present writer desires to support this view; in the first place, he has had the opportunity of examining another series collected by Mr. Murray from the same district of the Eastern Desert, and this, too, contains no "spokeshaves." Moreover, he spent a couple of months in 1914 in the Egyptian desert investigating a number of problems raised by the study of Egyptian palæoliths in museums, and found these "spokeshaves" only in the neighbourhood of Thebes. They are, however, getting scarce; never—so it would seem—one of the commonest forms, they have been regarded as specially desirable, and assiduously sought for by the hosts of natives turned loose by collectors to obtain specimens for them.

Dr. Sterns has a further short contribution on the subject of Darfur Gourds. The interest of this note will increase as further collections of gourds are made from known areas in the Sudan; meanwhile it may be noted that the geometric designs on these specimens do not resemble those on a series of gourds collected by the writer of this review in Southern Kordofan.

Mr. John Abercromby contributes a most scholarly study of the ancient speech of the Canary Islands, and concludes that it was a lineal descendant of a western dialect of proto-Libyan. Under the title, "The Utendi of Mwana Kuponu," Miss Werner publishes in the original Swahili, with transliteration and translation, a charming poem of the didactic order composed in the first half of last century by a Swahili lady of Lamu, its purpose being the instruction of her daughter, but, as the concluding lines make clear, it is also an exhortation to all women to read and profit by it likewise. Throughout the whole there runs a note of tenderness and wisdom.

"Do this little thing for me—the end is not far off—come and sit beside me—receive instructions more precious than jewels—an ornament of grace to thy head and chains about thy neck—it will profit you for this world and the next—hold fast to religion—behave and speak discreetly—be (like) pleasant food in every house you enter—do not associate with slaves—let your husband be content (with you)—keep faith with him always—look after him . . . like a child who knows not how to speak—do not be slovenly . . . let your house be clean—if a person in want comes to your house . . . do not worry him with questions, but hasten to do what you can for him."

Mr. Blanchard's "Notes on Egyptian Saints" is a paper of high missionary value. It would be well if a copy could be given to every official in Egypt, and it should certainly be reprinted so as to be made accessible to visitors to the country.

Dr. Reisner's short note on an inscription in Greek characters from Gebel Barkal—tentatively dated 300-500 A.D.—is interesting because, although originating from a late pre-Christian cemetery, it is probably of Christian origin, though so far the language in which it is written is undetermined.

The longest paper in the volume is that on Ancient Egyptian Fishing, contributed by Mr. Bates. Although the greater part of the paper describes the technique of capture, its implements and their modes of use, a number of interesting sociological suggestions are made. The author sees a special significance in the fact that so many of the pre-dynastic slate palettes are in fish form, and points out that "the nature of the subjects they depict at once suggests to the comparative ethnologist a direct relation between them and the pursuits of the hunter, the fowler, and the fisher. Primitive man in his search for food frequently tries to establish an impalpable, but in his eyes a very serviceable connection between himself and the object of his quest. One of the methods by which the hunter creates such a relationship is by making a likeness of his intended quarry. Such a likeness, by the doctrine that a simulacrum is actively *en rapport* with that which it represents, bestows on its possessor power over the original—the case is one of the commonplaces of homœopathic or imitative magic." Although fishing amulets which simulate the form of the quarry are usually worn by the fisherman, or are attached to his gear, the pre-dynastic palettes were not so used, but were employed to grind paint: "The power supposed to reside, in a palette might, however, very efficaciously be transferred to its proprietor by means of the paint ground upon it." "Persons who go in pursuit of the crocodile," says Pliny, "anoint themselves with its fat." In the same way that the crocodile hunter thus assimilates himself to his quarry by a direct contagion, so the owner of a palette could possess himself of the power in the slate likeness by painting himself with the 'medicine' ground upon it." A further development of this idea leads the author to regard the great royal palettes such as that of Narmer as a device for the preparations of a "victory medicine," in short, a slab for grinding this in the form of body paint.

Turning to another aspect of fishing, Mr. Bates shows that in later times there is evidence that fish was comparatively little eaten by the upper classes, though consumed in large quantities by their inferiors, a condition which, as is pointed out, exists among the Baganda at the present day. It might be added that no decent Zulu will eat fish, though as far as the writer is aware no general explanation of these facts has been given. There may be a good deal in Roscoe's remark to the effect that there is a general antipathy to fish among milk drinkers. There is a most interesting discussion on rafts and *balsa*, in connection with which the reviewer would protest against the figure on page 322, which purports to show a Shilluk on an *ambaj* "canoe," or more properly, "float." Repeated and uncomfortable experience

has convinced him that these floats do not stand high and dry out of the water, on the contrary the "deck"—if the term be permissible—is often awash, and if the Old Kingdom raft, a drawing of which is reproduced in Fig. 137, was really used by two men in the manner shown, it must have been a larger and much more stable craft.

With its pleasant form and important contents, *Varia Africana* cannot fail to attract much of the best work of those concerned with African anthropology, and, the reviewer looks forward eagerly to the future volumes of the series.

C. G. SELIGMAN.

Peru: Art.

Means.

A Survey of Ancient Peruvian Art. By Philip Ainsworth Means.

45

Mr. Means has endeavoured within a small compass to give a classification of pre-Columbian art in Peru and in the areas directly influenced by Peruvian culture. His aim is to distinguish the several successive periods of art in this region, and to give an outline of their characteristic features, and also to throw light upon their inter-relationships. He does not attempt to cover the whole field of Peruvian art, his principal material being derived from the products of ceramic and textile art though some attention is given to stone technique. Within the limits which he has imposed upon his range, he has produced a very readable and useful manual, and his account of the various schools of art, their order in time, and their influence upon one another, is a reasoned and suggestive one. The ordered classification of ancient Peruvian finds is yet in its infancy, and much fresh evidence must be collected in a strictly scientific manner before a systematic grouping of art styles in Peru can with confidence be accepted, and the full interest of the numberless specimens preserved in museums can be brought out. The existing uncertainties are fully admitted by Mr. Means, whose treatment of the subject is admittedly tentative. His essay is very suggestive and should be effective in stimulating further researches in the field, conducted in accordance with modern methods.

Mr. Means supports the view, now widely held, that the early culture in Peru and the more archaic types in art, were derived from Central America by culture migration. It is to be noted that he makes no reference to possible old-world influences disseminated by enterprising Phœnician explorers, whose activities have recently been so strenuously and assertively advertised.

The chronological sequence of culture periods which he gives is as follows: (1) Proto-Chimu, (2) Proto-Nasca, (3) Tiahuanaco I, (4) Tiahuanaco II, (5) Epigonal and Red-white-black, (6) Chimú and Nasca, (6) Colla-Chulpa, (8) Early Inca, (9) Late Inca. Of these divisions the first three appear to have been more or less contemporary, though Mr. Means gives reasons for believing that the realistic Proto-Chimú art antedated the more conventional and richly-coloured Proto-Nascan art. The Tiahuanaco I culture, he points out, is very distinct from the two former, and may have been derived from an Arawakan source, but the material available for diagnosis is limited and is mainly derived from stone-work, pottery and textiles being practically unknown as definitely associated with this culture phase. Tiahuanaco II is a period of very highly developed and widespread culture, which, as the author suggests, is mainly derived from the elaboration of Proto-Nascan elements. The Epigonal of the southern coastal region, and the Red-white-black art of the northern, are to be regarded as continuing the traditions of Tiahuanaco II, though in a decadent and inferior style. The period is one of stagnation and even of decay in art, which may be explained by the evidence of some great, though at present undetermined, disaster which swept the country towards the end of the Tiahuanaco II culture period. In using the term "Epigonal," it would have been well if the author

had defined the use of this word, for the sake of the general reader. The art of Chimu and Nasca cultures reflects the earlier Proto-Chimu and Proto-Nascan art schools. The period is one of elaboration in architecture, especially in that technique which is associated with the employment of *adobe*. The Colla-Chulpa art exhibits in general a marked degeneration, though advance is shown in the bronze work. The most striking feature of this pre-Inca period is the peculiar circular, stone-faced tower, known as *chulpa* (or *chullpa*), which is greater in diameter at the top than at the base, and which abounds as an architectural feature in the Callao district. The Early Inca period is one of renaissance and gradual raising of the culture level. New designs come into existence, as, for instance, the graceful *aryballus* type of pottery vessel. The culmination is reached in the fully-developed Inca or Cuzco culture. The recent researches conducted at Machu Picchu have yielded a vast mass of material throwing fresh light upon this last of the pre-Columbian culture periods.

The whole story of Peruvian art is a fascinating one, and Mr. Means has done valuable work in endeavouring to collate the material in a concise manual for the help of students. Much remains debatable, especially as to the approximate dating of the successive cultures, and the author's chronological suggestions rather fail to convince the reader, since he does not appear to have any uniform basis for his estimates of the number of rulers to be allowed to the successive dynasties.

The illustrations are mostly good, though several are lacking in clearness of definition, and should have been supplemented with clear, diagrammatic sketches of the patterns referred to. Dimensions of the objects figured are not given. A useful bibliography is appended to the book. We may be allowed to deprecate the spelling of the word "artifact," and the expression "derivative of," but these and other minor blemishes do not seriously detract from the value and suggestiveness of the book, which, if read in conjunction with Mr. T. A. Joyce's book on *South American Archaeology*, should prove of much service to students. HENRY BALFOUR.

Europe: Witchcraft.

Journal of the Manchester Egyptian and Oriental Society, 1916-1917. 46
Manchester University Press. 1917.

The only anthropological article in the present volume is that by Miss M. A. Murray on "The God of the Witches," in which she maintains the thesis that ritual witchcraft "is as clearly defined and organised a method of worship as any " other cult, ancient or modern, and may be classed as one of the religions of the " lower culture." It is a continuation of the subject treated of in her paper on the "Organisations of Witches in Great Britain" in *Folklore* for September, 1917. Her research has been amazing, extending not merely to works on witchcraft itself, modern and mediæval, but even to judicial records, such as old Lord Fountainhall's folios of Scottish *Decisions*. But the bitter theological and ecclesiastical imputations on witches, and the methods employed in the middle ages and since in judicial investigations of accusations of witchcraft, have discredited all the results claimed for them. The worship of a person identified with the devil of Christian teaching is claimed to be proved against the unfortunate persons who were arraigned for the crime. The incidents of that worship are obviously a parody of Christian rites; and they lead to an incurable suspicion that they have no other foundation than the prejudices of their accusers and judges, whose interrogatories were directed, not to ascertaining the facts, but to compelling the victims to yield the evidence desired. It is difficult, therefore, to appraise accurately the few grains of fact that may lie among the bushels of chaff; and a wholesome scepticism is the only reasonable attitude. All one can say is that they probably contain the detritus of earlier religions,

as Professor Karl Pearson contended long ago. But at present, to commit oneself to details on evidence of the kind that Miss Murray thinks sufficient is to build on shifting sands.

E. S. H.

Africa : Linguistics.

Benton.

Primer of Kanuri Grammar (Translated and Revised from the German of A. von Duisburg). By P. A. Benton, Second Class District Officer, Bornu Province, Nigeria. Humphrey Milford, Oxford University Press : London, Edinburgh, Glasgow, New York, Toronto, Melbourne, Cape Town, Bombay. 1917. 130 pp. 47

The Kanuri language spoken in the Bornu province, west of Lake Chad, is of much importance in the administration of the states resulting from the division of the ancient Bornu kingdom between Great Britain, France, and Germany. It is also largely used by traders in the Central Sudan. The present work is mainly a translation, but Mr. Benton has not hesitated to express his dissent in certain cases from statements in the original work. His classification of the tenses of the Kanuri verb, for example, is independent. The book is published in a more convenient form than Koelle's work, which up till now has been the only English grammar of Kanuri, and one is glad to find that Mr. Benton champions the accuracy of that pioneer of African studies against Duisburg's depreciation.

There are short Kanuri-English and English-Kanuri vocabularies, but these are only supplementary to those of Koelle and the author, published elsewhere.

Mr. Benton has produced a handy, useful, and interesting little book on a language which must necessarily be understood by the official trader or missionary in the Soudan.

SIDNEY H. RAY.

ANTHROPOLOGICAL NOTE.

ACCESSION TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL INSTITUTE.

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(Donor indicated in parentheses.)

The War and the Bagdad Railway. By Morris Jastron, Jr., Ph.D., LL.D. $7\frac{1}{2} \times 5\frac{1}{2}$. 160 pp. 14 Illustrations and Map. J. B. Lippincott Co. 6s. net. (The Publishers.)

Guide to the Musical Instruments exhibited in the Indian Museum. By Dr. A. M. Meerwarth. $9\frac{3}{4} \times 6$. 20 pp. 13 Plates. Government Printing, India. 8d. (The Director, Zoological Survey of India.)

Religions of the Past and Present: a Series of Lectures delivered by Members of the Faculty of the University of Pennsylvania. Edited by James A. Montgomery, Ph.D. $8\frac{1}{2} \times 5\frac{1}{2}$. 425 pp. J. B. Lippincott Co. 10s. 6d. net. (The Publishers.)

The Megalithic Structure of Indonesia. By W. J. Berry, B.A. $8\frac{1}{2} \times 5\frac{1}{2}$. 192 pp. 4 Plates, Illustrations, and 4 Maps. Longmans, Green & Co. 12s. 6d. (The Publishers.)

Aids to the Study of Ki-Swahili. By Mervyn W. H. Beech, M.A., F.R.A.I. $8\frac{3}{4} \times 5\frac{1}{2}$. 159 pp. Kegan Paul, Trench, Trübner & Co., Ltd. 6s. net. (The Publishers.)



FIG. 1.—FRONT VIEW.
LENGTH, 3 FT. 5½ IN.



FIG. 1A.—SIDE VIEW.
LENGTH, 3 FT. 5½ IN.



FIG. 2.—LENGTH, 4 FT. 8 IN.
(HEAD MISSING)

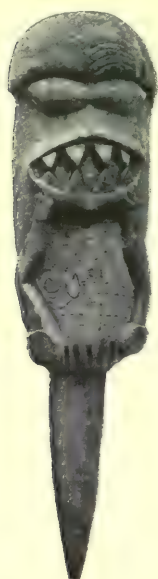


FIG. 3.—2 FT. 4½ IN.



FIG. 4.—2 FT. 3½ IN.



FIG. 5.—2 FT. 1½ IN.

ORIGINAL ARTICLES.

Ethnography.

With Plate F.

Cheeseman.

Maori Burial-Chests. By T. F. Cheeseman, F.L.S., Curator of the **49**
Auckland Museum.

The Auckland Museum possesses fifteen chests which have all been found in caves north of Auckland. When found all contained, or had contained, the bones of deceased chiefs collected after the funeral ceremony called *hahunga*. Eight of these chests have already been figured and described.* Seven others are now shown in Plate F and Figs. 6 and 7.

All the chests have, or have had, wooden lids at the back, which were lashed to the chests.

No. 1, of which both front and side views are shown, has the peculiar feature that the legs show a duplication of the thighs and shins. The figure apparently represents a woman in parturition, a frequent theme in Maori carvings. This chest was found in a cave in the Bay of Islands district.

Nos. 2, 3, 4, and 5 belong to an entirely different type, the base being narrowed to a sharp point, so that the chest could be fixed erect with the pointed end sunk in the floor of the cave. No. 2 contained the bones of a skeleton complete, except for part of the head. Nos. 3, 4, and 5 contained skulls only. These four chests are the only examples of this type which have been discovered.

No. 6 comes from the Hokianga district, and contained some remarkably fine ornaments of nephrite as well as the usual bones. The carving shows some well-developed spirals.

FIG. 6.—LENGTH,
3 FT. 4 IN.

No. 7, which comes from Whangaroa, is carved from the wood of *Metrosideros*. It is much weather-worn, and would appear to be the oldest of all the chests in the museum.

FIG. 7.—LENGTH,
2 FT. 8 IN.

T. F. CHEESEMAN.

Europe: Witchcraft.

Murray

Divination by Witches' Familiars. By M. A. Murray.

Among the witches of Great Britain there were three kinds of familiar: **50**
(1) the human, (2) the divinatory animal, (3) the maleficent animal. Of these, the first is known throughout Western Europe; the second is common in Great Britain, and known in France; the third is strictly confined to England only. Much confusion occurs owing to the fact that all three kinds of familiar were regarded as

* *Trans. New Zealand Inst.*, 1906, Vol. XXXIX, p. 451.

substitutes for the Devil, and are freely spoken of as the Devil. They should, however, be called "Imps" or "Familiars"; and in Essex they were known as "Puckerels." I propose to bring forward in this paper facts to show that some of these "imps" were really animals used for divining.

Forbes, the great Scotch lawyer, exactly describes the position when defining the contract between the Devil and the witch: "The Devil on his Part articles "with such Proselytes, concerning the Shape he is to appear to them in, the "Services they are to expect from him, upon the Performance of certain Charms "or ceremonious Rites."^{*}

A great part of the witches' business was to foretell the future, to discover stolen goods, and to cure diseases when the legitimate mediciner had failed. All these actions were performed by the help of the familiar, from whom the witch was accustomed to "seik responsis." The Devil appears to have appointed to each witch, on her admission, one or more animals for divinatory purposes. They were usually common animals—a horse, a dog, a bird, and in Scotland sometimes a stag. In Great Britain it seems to have been essential that the animal should not belong to the witch, but should appear to her after "the Performance of certain Charms "or ceremonious Rites"; and any animal of the given species, which came into view after the magic words were spoken, was regarded as the emissary or substitute of the Devil. The movements of the animal were observed according to some definite system, and the witch was thus enabled to answer the inquiries made of her. The method was probably traditional, and was taught to the witch sometimes by the Grand Master or "Devil," sometimes by one of the senior witches.

The case of Agnes Sampson, of Nether Keith, in 1590, brings out these points very clearly. She was tried for high treason, in that she made an attempt on King James VI's life by means of witchcraft. She was "a woman, not of the base and "ignorant sort of witches, but matron-like, grave and settled in her answers, which "were all to some purpose. In her examination, she declared that she had a "familiar spirit, who, upon her call, did appear in a visible form, and resolve her "of any doubtful matter, especially the life or death of persons lying sick."[†]

In the trial she was accused of having practised regularly as a witch, and examples of her witchcraft were charged and proved against her. Of these charges there are several which state that her fore-knowledge of events was obtained by means of the Devil, and that the animal by which she divined was a dog.

"Item, fylit, that she had fore-knowledge by her Witchcraft of diseased persons, if they would live or not. Item, fylit and convict, that she fore-knew of the Devil, and told Patrik Porteous, that he would live but eleven years. Item, fylit, that she was made fore-knowing of the Devil, of the last Michaelmas storm. Item, fylit, that she was made fore-knowing by the spirit, that the Queen's Majesty would never come in this country, except the King fetched her. Item, fylit and convict, that the Devil appeared to her in likeness of a dog, at whom she sought her whole responses; and when she put him away she charged him to 'depart on the law he lives on'; who with they words is conjured and passes away. Item, fylit and convict, that when she was send for to heal the old lady Edmestoun, when she lay sick, before the said Agnes departed, she told to the gentlewomen, that she should tell them that night whether the Lady would heal or not; and appointed them to be in the garden after supper, betwixt five and six at even. She passed to the garden, to devise upon her prayer, on what time she charged the Devil, calling him 'Elva,' to come and speak to her, who came in over the dyke, in likeness of a dog, and come so near her, that she was effrayed, and charged him 'on the law that he

^{*} Forbes: *Institute of the Law of Scotland*, II, pp. 32-4.

[†] Spotswood: *History of the Church of Scotland*, p. 383, ed. 1668.

lived on,' to come no nearer, but to answer her; and she demanded, Whether the lady would live or not. He said, 'Her days were gone.' Then he demanded, 'If the gentlewomen her daughters, where they were?' And she said, that 'The gentlewomen said, that they were to be there.' He answered, 'One of them should be in peril, and that he should have one of them.' She answered, 'It should not be so,' and so departed from her yowling. From this time till after supper, he remained in the well. When the gentlewomen came in, the dog come out of the well, and appeared to them: whereat they were effrayed. In the meantime, one of the said gentlewomen, the Lady Torsenye, ran to the well, being forced and drawn by the Devil, who would have drowned her, were not the said Agnes and the rest of the gentlewomen gat a grip of her, and with all their forces drew her aback again, which made them all afraid. The dog passed away thereafter, with an yowl.*

The familiar by which the Derbyshire witch, Alse Gooderidge, divined was a dog belonging to a neighbour. The dog's master objected, and requested that his dog should not be used for the purpose.†

Margaret Clark, of Aberdeen, was tried in 1597 as a witch, and was accused of conference with animal-familiars. She was a midwife, and being sent for to a case "and one Androw Man coming for thee, the Devil thy master, whom thou serves, and who teaches thee all this witchcraft and sorcery, appeared to thee, in the likeness of an horse, in an how or den, and spake and conferred with thee a long space.—Upon New Year's day, thou was at the loch side beside Boigloch, and there thou pudled by a long space, thy self alone, in a deep hole amongst the water, casting water, earth, and stone over thy shoulders, and there was beside thee thy master the Devil, whom thou serves, in the likeness of an hen flichtering, with whom thou was then consulting, and whose directions then thou was taking."‡

Alexander Hamilton, a Lothian witch, made a contract with the Devil: "After the which paction and agreement made and comed to betwixt them the said Alexr then having a baton of fir in his hand the Devil then gave the said Alexr command to take that baton when ever he had ado with him and therewt to strike thrice upon the ground and to charge him to rise up foul thief Conforme to which direction and by striking of the said baton thrice upon the ground, the devil was in use sometimes to appear to the said Alexr in the likeness of a corbie at other times in the shape of a cat and at other times in the shape of a dog and thereby the said Alexr did receive responses from him."§

Elizabeth Style, a Somerset witch tried in 1664, was accustomed to call for "Robin," and on the appearing of a black dog, "she useth these words *O Sathane, give me my purpose*. She then tells him what she would have done. And that he should so appear was part of her contract with him."||

One of the latest trials, that of Margaret Nin-Gilbert, of Thurso, in 1719, shows the confusion which the recorders often made between the real Devil or Grand Master of the witches and the animals which represented him, in this case a horse and a hen. There is also an interesting variant in the use of black clouds: "Being interrogat, If ever the devil appeared afterwards to her? Confessed, That some times he appeared in the likeness of a great black horse, and other times riding

* Pitcairn: *Criminal Trials*, I, pt. ii, pp. 332-6. Spelling modernised.

† *Alse Goodridge*, ed. 1597.

‡ *Spalding Club Miscellany*, I, pp. 157-9. Spelling modernised.

§ From the record of the trial in the Justiciary Court of Edinburgh, under date January 22, 1630. Spelling modernised.

|| Glanvil: *Sadducismus Triumphatus*, Pt. II, p. 137.

"on a black horse, and that he appeared sometimes in the likeness of a black cloud, and sometimes like a black henn."*

The divinatory animal was known also in France. The conditions there were, however, rather different from those in Great Britain. The creature was always a toad, presented by the Devil to the witch on her admission into the society; it was kept in the house as a kind of pet, and was used for divination in matters affecting the owner only. Silvain Nevillon, tried at Orleans in 1614, "dit qu'il y a des Sorciers qui nourrissent des Marionnettes, qui sont de petits Diablotaux en forme de Crapaux, et leur font manger de la bouillie composée de lait et de farine, et leur donnè le premier morceau, et n'oseroient s'absenter de leur maison sans leur demander congé, et luy faut dire combien de temps ils seront absens, comme trois ou quatre iours, et si elles disent que c'est trop, ceux qui les gardent, n'osent faire leur voyage outre-passer leur volonté. Et quand ils veulent aller en marchandise, ou ioüer, et sçavoir s'il y fera bon, ils regardent si lesdites Marionnettes sont ioyeuses, en ce cas ils vont en marchandise, ou ioüer: mais si elles sont maussades et tristes, ils ne bougent de la maison."† M. A. MURRAY.

Ibo: Folk-tales.

Thomas.

Stories (Abstract) from the Awka Neighbourhood (V). By N. **51**
W. Thomas.

17. THE TORTOISE AND THE EAGLE.

One day the ground squirrel took a double bell and called the animals. He said he had a fine girl, they must come. The squirrel showed them his daughter and said he had a big farm, and the animal that planted one line of yams and finished first should marry his daughter. "All right," they said.

The tortoise used to take eight days to plant his row. The girl cried, "I can't agree to the tortoise." "Don't mind," said the ground squirrel.

The eagle said he could go quicker, any time would do. He cut palm nuts and gave them to his mother, and said "Clean them." Then he went to get tombo. His mother cooked chop and the eagle ate it. He told his mother to pound *okbaka*, put it into a bottle, and stick a spoon into it. Then the eagle went off with hoe and bottle. Some of the animals had done half, some more. The tortoise had twelve heaps to finish (out of ? 150) (the animals said in twenty-four days they would come, the tortoise began in sixteen days).

When the eagle found the animals making heaps he gave them palm nuts and *okbaka*. "Oh, too sweet, give me more," they all said. "Wait," he said, and so on. The tortoise had only two heaps to make, but he fell a victim, and the eagle got the ground squirrel as a wife.

The eagle flew up to the sky. His wife marked him one day, and he tied good cloth and said he was going to work on the farm. He saw the tortoise, who asked to see the marks. "Oh, I will ask your wife to mark me," said the tortoise. "All right," said the eagle, "but don't take my wife, you are too cunning. I will follow you." "I won't deceive you," said the tortoise. "I will follow you," replied the eagle.

The eagle told his wife to throw the heaven-rope down. The tortoise climbed up, looked round, begged the wife, and said he would come one day. "All right," she said. The eagle's wife brought the heaven-rope and the eagle went too.

The tortoise called the animals to his house and said, "I know how the eagle's wife lives in the sky. He calls his wife to throw the rope. Let us go and climb."

* Sharpe: *Historical Account of Witchcraft in Scotland*, p. 191.

† De Lancré: *L'Incredulité et Mesocréance*, p. 802.

The tortoise called the eagle's wife. He told her to throw down the string, and she thought it was her husband. The tortoise said he would climb last, then the eagle's wife would not know he had called them.

When they were near the top a bird went to the eagle at the farm and let fall droppings on his back. The eagle stood up and asked where it was. "May the hunter kill you," he said. "I come to tell you something," said the bird. "The animals are going to steal your wife and cut the rope."

The eagle went and called to his wife, "Take a knife and cut the rope." All the animals fell out and the tortoise broke all his skin and could not stand up again.

Okbu (grasshopper) came out and met the tortoise. The tortoise begged Okbu to sew him up, saying he could get land in payment. The snail came and met the tortoise. The tortoise explained and asked the snail to help Okbu to sew him and rub his skin smooth; he would give him okwa tree, he said. Añanri came and met the tortoise. The tortoise explained and asked Añanri to help the snail and Okbu to sew him and rub his skin smooth; he would give him palm tree, he said.

The animals met and sewed him. Then Añanri cut down palm tree and found the nuts were not ripe. The tortoise told Añanri to come down and then broke it in two, joined it with *ogili*, and said, "I have paid you."

The okwa tree was ripe and Okbu went to take it for the snail. The tortoise threw a stone and hit the grasshopper. Okbu threw three okwa down at the tortoise, but missed him, and ran away. Then the tortoise knocked the snail on a stone, mended it with mud, and said, "I have paid you."

Okbu planted yams on the land and they got good roots. Okbu sent the snail to get the yams, and the tortoise said he would go too. The snail told *ji abana** to bend so that he could dig it. Then the snail dug. The tortoise stole the yams another day. He told abana to bend and abana threw him on the iroko tree. The tortoise called his wife to put down sand for him to fall on. "Do you tell me to bring a stone?" she asked. "No," he answered, and abused her. His wife really knew. "Bring me some sand to fall on," he said. "Do you say a long basket?" she asked. "No," he answered, and told her a third time, "Bring me some sand to fall on." Then his wife put some stones and covered them with a little sand. The tortoise fell and broke his back, so he told his wife to call Okbu to mend him. Okbu came and was promised a he-goat. "We will be good friends," they said, "and ask each other for a feast." The tortoise told the grasshopper to come. The tortoise cooked some soup at midnight. The soup was cold at dawn, and the tortoise went inside and told his wife to put fufu on the pot when Okbu came, and show him the small fish (*i.e.*, the tortoise) in the soup.

When Okbu came the tortoise's wife gave him chop. He ate fufu, put his hand in the soup, saw the tortoise, and said, "I will eat him." He licked him and the tortoise fell. "Oh, you can't eat me if I keep quiet," said the tortoise. Then Okbu said, "Let us drink palm wine." They drank. "How did you go into the soup?" asked Okbu; "before or after cooking?" "As soon as it was cooked," answered the tortoise.

The tortoise said he was coming to Okbu's place. He went, and the wife of Okbu said Okbu was not there; he was getting palm wine. Okbu was inside the soup; he went in while it was hot and it killed him. The wife of Okbu gave soup to the tortoise, who found the dead Okbu in it and ate it. Then he asked for palm wine and got it. After that the tortoise said he was going, and left a salutation for Okbu.

The wife of Okbu got a child. It grew up and the wife to it to make a second

* *Ji abana*, a kind of yam.

burial for his father. "No," said the boy, "I did not know him." So the wife of Okbu threw the boy in a hole.

A pigeon collected food in the hole, saw the boy, and asked what it was. "Mother threw me in," said the boy. She took it home.

18. THE TWO BOYS.

A woman conceived often, but the children died. She asked a doctor and he divined. She conceived and bore a living child and called him Amačamifowa (*A*). Then she bore another boy and called him Amačagaifeowa (*B*).

She fell sick; the boys said, "Let us get firewood for her." *B* went to the back of Čuku's house and cut wood. Čuku said, "Who is that?" "I, *A*," he replied; "All right; the wood shall stop in the ground, the axe in the wood, and 'the hand on the axe,'" said Čuku. And it was so. *B* nearly died. Then Čuku called and said, "Wood come out of the ground, axe out of the wood, and hand 'from the axe,'" and it was so. *A* came and quarrelled; he took the axe and cut firewood in the back of Čuku's house. Čuku called. "I, *A*," he answered. "All 'right,'" said Čuku, "the wood shall stop in the ground, and the axe in the wood, 'and the hand on the axe.'" *A* called out to Čuku, "May you swell, may you 'fill the house and come outside too.'" So Čuku swelled and could not speak. *A* could not move.

A boy in another house in Čuku's place asked who was breaking wood in the back of his father's house. *A* said, "I." He said, "Let the wood come out of the 'ground, the axe out of the wood, and the hand off the axe.'" And it was so. *A* then called out, "Let Čuku dry, etc." So Čuku recovered.

Čuku went to *A*'s house and said he would come up for *A* to shave his head. *A* took a skull, took corn leaves off and put the corn in a calabash. Čuku came; *A* said he was working; Čuku said he would shell corn if *A* would shave his head.

A shaved the head and Čuku rubbed his hand over his head and said, "Why 'did you shave all my head; put it back.'" *A* said, "Take the corn cob and put 'the seeds back.'" Čuku could not do it, so he went.

Čuku gave *A* a round basket to fetch water; *A* took cassava, spread it, and put a circle round it, and told Čuku to carry it in when it rained.

Rain fell when *A* went to the water; Čuku tried to carry the cassava and ground, but could not. *A* could not carry the water, so he washed and went home. Čuku asked, "Why is there no water?" *A* asked, "Why is the cassava not carried in?" "Did you ever see a man carry land on his head?" replied Čuku. "Did 'you ever see a basket for water?" answered *A*.

Čuku called *A* and *B*; he gave *B* one cow and *A* one bull. "Keep them for 'seven years, and each year you will have one calf," he said. They did so, but *A* got no calves. *B* went and Čuku asked for *A*. "*A* has stranger at home," said *B*. "All right." Čuku and *B* shared the cows. *B* went home.

A took the bull and went to Čuku and said it got no calves, "Take the bull back," but Čuku would not take it. *B* threw it into the house and went.

19. THE TORTOISE AND THE ANIMALS.

The tortoise beat a bell and called the animals. He said, "We will clean the 'place, and no one shall defæcate there; if anyone does we will kill it."

Tortoise went and defæcated and put pepper on the dung and said it was to say it was the monkey. Tortoise asked it, and the pepper said "Monkey." The animals came, caught and killed the monkey, and gave the body to the elephant. "If you eat the meat we will kill you," they said. The elephant went to cook it

and put it in a room and then went to sleep. The tortoise went and ate the meat.

At dawn all met in an open place. The tortoise said, "Let us go to the elephant's house and share the meat." The elephant could find nothing. The tortoise said, "Let us kill the elephant." So they killed the elephant and gave it to the grasshopper to cook and keep. The tortoise stole the meat.

When the animals came to share the meat there was none. So they killed the grasshopper and gave it to Agu okbú, that is, the brother of the leopard.

At dawn they found the meat was gone, so they killed Agu and gave it to Ntẹ, a small grasshopper. Ntẹ cooked the meat and put it on the top of the house. Then he took a knife, sharpened some arrows, made a bow, and kept watch.

The tortoise came and called, "Ntẹ, my brother." Ntẹ aimed the bow. The tortoise gave three calls and then climbed on to the house. Ntẹ shot it in the head. The tortoise looked up and down, but saw nothing, and ate again. Ntẹ shot it in the belly and it fell from the house; then Ntẹ shot it near the ear, and the tortoise ran.

Ntẹ caught it, and the tortoise said, "Don't kill me; we will be good friends. He knelt and said if Ntẹ told the animals they would kill him, the tortoise. He said he would come at night, but did not go. Ntẹ sent a message "at dawn," but still he did not go. So Ntẹ and tortoise were not friends. N. W. THOMAS.

Malta : Geology.

Boyd Dawkins.

The Maltese Cart Ruts. By W. Boyd Dawkins, M.A., D.Sc., F.R.S.

52

In MAN, 1918, 40, Captain Fenton describes in considerable detail the more or less straight parallel grooves which traverse the calcareous rocks of Malta as "cart ruts," and enters into speculations as to the time when they were worn by prehistoric carts. As these "ruts" pass over the edge of the cliffs, and plunge into the waters of the sea, he takes them to imply that they were worn by carts at a time when Malta had a geography differing from that of the present day. Professor Zammit assigns them to the Neolithic Age, and they are generally taken locally to have been made by cart wheels.

Fortunately the two photographs (Figs. 1 and 2) in the article decide without doubt that they are not artificial, but due to the weathering of the rock under natural conditions. They are merely the ordinary joints, widened and eroded by the rainwater containing carbon dioxide, familiar to geologists in all limestone plateaux exposed to the rain—such as "the pavements" of Yorkshire and the Lake District, and to be seen over very wide regions in Southern France. In both photographs the two main lines of joints are clearly defined, the one—the "cart rut"—passing from the foreground to the horizon, and the other more or less at right angles. In Malta, as in all other places which I have examined, they will probably be found to run in two principal directions, the one slightly to the east of north, and the other slightly to the south of east. They are merely lines of shrinkage, due to the contraction of the rock, and widened afterwards by the rain. They have no archaeological significance.

W. BOYD DAWKINS.

British New Guinea: Fishing and Magic.

Malinowski.

Fishing in the Trobriand Islands. By Bronislaw Malinowski, D.Ph. (Cracow), D.Sc. (London).

53

I. INTRODUCTORY REMARKS.

Boyowa, the largest island in the Trobriand Archipelago, is a coral island provided with a fringing reef on the north, east, and south. On the western side there is an extensive lagoon, sheltered by a chain of reefs and small islands. There

are plenty of opportunities for fishing, and, as the inhabitants of this densely populated island are both skilful and industrious, it is not astonishing to find that fishing is highly developed, and that it is, after gardening, the most important economic pursuit. Fish constitute the staple form of their flesh diet, since neither hunting nor domestic animals (pigs and fowl) provide sufficient meat even for festive occasions. A good number of villages possess direct access to the sea, and from them the others can obtain fish by means of a well-regulated system of barter.

The fishing in the shallow waters of the lagoon naturally differs from that on the fringing reef or in the open sea, and the three types must be described separately.

II. FISHING IN THE LAGOON.

Here, in water almost constantly calm, fishing can be done all the year round, and it has developed into a regular trade, as the villagers are often requested by an inland community to provide fish in exchange for yams. A number of very large villages lie on the shore among the palms that grow near the salt water. Each village has its own fishing grounds, upon which strangers very seldom trespass, though some fighting for that reason is on record. Some of the villages control coral patches in the lagoon, which afford specially good opportunities for fishing by means of the poisonous root of a creeper (*tuva*). These patches are owned by individuals, trespass being considered equivalent to theft, but it is usual for other men of the same village to hire a patch. In the villages where patches are owned, fishing with the poison root only is practised, this form being by far the easiest and most reliable. A few men paddle in a fishing canoe to a place above a patch and cast a net so as to surround it completely. A parcel with some freshly-pounded *tuva* root is attached to the end of a long stick. A man dives and inserts this stick into one of the cavities with which all coral patches are riddled. Any fish in the hollow, *i.e.*, in the neighbourhood of the poison, come up to the surface, and are either so dazed that they float inert on the water, or else try to escape and become entangled in the net.

In villages which possess no claims to a patch the fish are simply caught in nets stretched between two canoes.

Besides these two main forms of fishing there are minor ones—by means of weirs, fish traps, and hand nets. The sting ray is taboo to a large number of villages, but there is one in the northern part of the island where this fish is eaten, and the inhabitants go out into the lagoon with long sharp poles to catch it.

III. FISHING ON THE FRINGING REEF.

This fishing is carried on by the villages situated near the seashore on the north-eastern and southern sides of the island. As the prevailing winds strike the eastern and southern shores for about six months of the year and the northern shore for three months, fishing can only be done seasonally from these villages. Moreover, the yield is limited, since, instead of the considerable area of the lagoon, where fish are plentiful, there is only a narrow belt of water between the beach and the fringing reef, where there is no great abundance of fish. It is, therefore, only a kind of sport, and, with two exceptions to be mentioned below, is not practised as a trade, nor do these villagers rely upon their own supply in the case of large feasts.

The mode of catching the fish is by means of long narrow nets. Such a net is set in a gap of the fringing reef and held at both ends by two men. Ten to thirty others start in a large semicircle and drive the fish from the shallow water into the net.

In some villages they used to catch fish with tortoise-shell fishhooks, now

entirely superseded by those of steel. Fishing at night with torches is also practised.

IV. SPECIAL FORMS OF FISHING ON THE NORTHERN SHORE.

The villages here have more calm weather than those on the eastern shore. Two villages have developed special forms of fishing.

1. *The Kalala Fishing in Labai.*—The *kalala* fish (mullet?) arrives on this coast periodically in large shoals at spawning time. This happens every few months during the calm season, always at full moon. Large numbers of fish, seeking estuaries in which to spawn, enter the shallow water between the beach and the fringing reef. The villagers, who are always on the look out for the fish about full moon, are ready camping on the beach. They are provided with long square nets of the ordinary type, and triangular hand nets. When the shoals are sighted, the long nets are cast in such a manner that an area is enclosed near the beach, an opening being left at the east end, for the fish always swim from east to west. The fish enter the enclosed area in large numbers, the later arrivals pressing on the earlier ones. These are pushed towards the large nets, and jump out of the water in order to get over the obstacle. But all round the large immersed net stand a row of men, each holding a triangular hand-net, in which the fish are caught as they jump out of the water.

2. *Shark Fishing in Kaibuola.*—This is done in the open sea, far beyond the fringing reef, in special small canoes. One fisherman mans each canoe, and, equipped with a large wooden shark-hook (now gradually superseded by pieces of thick metal wire), with a decoy-rattle and with a short thick piece of wood, paddles out into the open sea, as a rule out of sight of land. Here the rattle, which consists of coconut-shell segments threaded on a bent stick, is sounded under water. This gives a very good imitation of the noise made by a shoal of fish jumping out of water. A shark, attracted by this noise, approaches the boat and snatches at the baited hook. It is then drawn towards the boat, where the man finishes it with a piece of wood.

Shark fishing is done only during the calm spells between the seasons, as a rule during the spring calms in October and November, when the south-east trade wind changes into the north-west monsoon.

V. THE ECONOMIC ASPECT OF FISHING.

In fishing, as in all other economic pursuits, the rights and privileges of ownership are strictly regarded in Kiriwina: the rights of a community or individual to certain fishing places; the claims of the owner of a canoe, net, or other equipment to a specific share in the quarry, the duty of distributing portions of the yield among the participants in a fishing expedition as well as tributes to certain other privileged persons; all these are matters of prescriptive right. The individual ownership in coral patches has been already mentioned. If the owner of such a patch organises a fishing expedition, he has to give definite portions of fish to his assistants. If another man hires a coral patch, he has to make a certain definite payment to the owner. In the other form of fishing, practised on the lagoon, the owner of the canoe from which the fishing is done receives the largest share, but all the participants get their due according to fixed rules.

When the natives of the eastern villages organise a fishing expedition on the fringing reef, a form of sport to them rather than a serious economic pursuit, all those present receive an equal share of the yield, the owner of the nets not being privileged in any way.

In shark fishing, if the owner of the canoe goes out himself, he of course keeps the whole of the quarry. If a man goes in a hired canoe, he has to give certain

parts of the shark caught to the owner, whereas all those taking part in the fishing for the *kalala* retain their own catch. Both the shark and the *kalala* are sent in roughly prescribed quantities to the chiefs in some inland villages, as a tribute from the villages of Labai and Kaibuola respectively.

To understand these economic relations it is necessary to keep in mind certain general facts; as a rule the catch is plentiful, often so plentiful that part must be thrown away, as there are no means of preserving the fish. There is no inducement, therefore, for anyone to be mean, and as a rule everybody in the village, and even in the neighbourhood, gets his share. But the privilege of giving is very highly valued by the natives, and the distribution of the catch must proceed according to customary rules, no intermediate link being skipped.

The man in charge—whether the owner of some privilege or the organiser of a feast—must secure his portion and see that his assistants get their shares, and then everybody gives a part of the yield to his relatives, relatives-in-law and friends, again according to fixed rules, and in definite order, if possible. After this ceremony of customary presentation is over, all the inhabitants of the village get as much as they want, including dogs, cats, pigs, white men, and their native cooks. But none the less, the customary forms of distribution must proceed along the prescribed channels.

VI. MAGIC IN FISHING.

Success in most economic pursuits depends in the eyes of the natives upon the performance of effective magic. Thus gardening, the most important of these pursuits in Kiriwina, is closely bound up and regulated by elaborate systems of magic. It would be natural to expect that the pursuit next in importance—fishing—would be quite as much under its sway. Remarkably enough, this is only partially true.

As mentioned above, in the western villages fishing in the lagoon is an activity which always gives an abundant yield, without uncertainty and without risk to the fishermen. This is especially true in the case of fish poisoning among the coral patches, where a man is sure to obtain an abundant catch easily each time he goes out. Now there is absolutely no magic in connection with fish poisoning, and very little in connection with the ordinary fishing by means of nets.

Yet on the northern shore, both in the *kalala* and shark fishing, we find that the whole proceedings are absolutely governed by magic. Thus the *kalala* fish must, in the natives' belief, be drawn by magic, and the success in fishing is, according to them, entirely dependent upon the strict observance of numerous taboos and the performance of certain rites. Shark fishing is hardly less subject to magico-religious observances, the construction of the special canoes, the opening of the fishing season, and the actual expeditions, being all connected with magical ceremonies and taboos. It is important to note that in contrast to the state of things on the lagoon, here, on the northern shore, the elements of chance and risk are quite prominent in the fishing.

As the magical proceedings give to both forms of fishing a distinct character, a short account thereof must here be given.

VII. MYTHS, MAGIC, AND TABOOS OF THE *Kalala* FISHING.

The mythical hero, Tudava, who looms conspicuously in the legends of the archipelago, was born in Labai, and his mother also gave birth to the first *kalala* fish. Tudava ordered this fish to go south to the d'Entrecasteaux group, and to come back to Labai at full moon, so that the village might have a supply of food. On the other hand, he gave the village magic to draw the fish. This magic is preserved and handed down by each successive headman of Labai, who is a direct descendant of Tudava in the maternal line. The hero also imposed certain taboos

on the village, which are connected with the *kalala* fishing: no dancing, singing, or beating of drums is allowed in Labai, and the central place of the village is overgrown with trees, which may not be felled. The jungle between the village and the beach is also protected; here too, neither trees may be felled nor shrubs damaged. The taboos become much more stringent when the fishing period at full moon approaches: all strangers are rigorously excluded from the beach and its approaches; on the other hand, all the men of Labai must be in the village or on the beach, and they may not be absent on travels during the fishing season. The magician has to observe a few taboos, among others he is forbidden to touch the *kalala* fish.

When full moon approaches and the natives expect the fish to arrive soon, the magician sweeps his house and its surroundings, muttering a spell in which he invokes the names of certain ancestors. This is done so as to "keep the way clear for the *kalala*." The next day, early in the morning, all the men follow the magician to the beach. A few yards away at a definite spot, the magician puts an uprooted *libu* plant across the path and recites a spell over it. From this moment the beach is taboo to all strangers, and the fishing period begins. The villagers camp on the beach, ready to cast their nets, and some even spend the night there. Every spot has its name, its traditional story, and its functions, *e.g.*, here is a sacred stone which no one else is allowed to approach, where offerings to ancestral spirits are laid by the magician during the *kalala* fishing; there is a special part reserved for fire and cooking; there is a place from which a look-out is kept for the fish, and several other spots of minor importance. On the day following the ceremonial march to the beach more magic formulæ are said over the fishing nets and over certain herbs which are supposed to attract the fish.

VIII. LEGEND, MAGIC, AND TABOOS CONNECTED WITH SHARK FISHING IN KAIBUOLA.

The natives tell a story how formerly shark fishing was carried on from another village on the north-west shore, its coming to Kaibuola being the result of a quarrel. The man who brought it handed the magic to his wife, since when it has been transmitted to her descendants, always in the maternal line, as is the general principle of inheritance in Kiriwina. There are no permanent taboos observed by all the inhabitants of Kaibuola, though the magician has to abstain permanently from the flesh of several fishes and birds, and especially from eating shark.

At the beginning of each shark-fishing season new canoes are built, and the old ones overhauled. The bulk of the shark magic is performed in connection with this activity. When the season approaches, the owners of canoes needing repair, and the intended owners of new ones, consult with the magician and offer him presents. On an appointed day, the magician performs a rite in his house, offering some food to ancestral spirits and reciting a spell. During the rite the presents he has received are exposed in his hut. After that, the men get the timber into the village and proceed to work at the canoes for a couple of weeks. This is the period of the strictest taboos observed by the whole community. No noise is allowed in the village, no hammering of wood against wood or working with implements, no noisy playing or games. Neither men nor women adorn their bodies or comb their hair, nor do they anoint themselves with coconut oil. Women are not allowed to make any "grass" petticoats. The whole village have to keep the sex taboo, and all strangers are strictly forbidden access to the village. These two last prohibitions last only during the short period of building and overhauling the canoes. The remainder are kept throughout the shark fishing season, though less rigorously after the work on the boats is finished.

When all the boats are ready the magician utters charms over certain herbs, with which the canoes are rubbed. The fishing implements also have incantations chanted over them, and the fishermen proceed ceremonially on the first fishing expedition. The greater part of the quarry caught during the first outing is sent to the main chief in the village of Omarakana.

During the whole season of shark fishing, which lasts for about two moons, the magician keeps certain special observances and performs certain rites. Thus he has to abstain from sexual intercourse, in fact, his wife and family move away from the house, in which he remains alone, keeping the interior and the surroundings of his hut clean and tidy. He must keep to the village, as he is forbidden to hear the sound of drums or of song. When the fishermen go out on an expedition, he opens wide the door of his house and sits on the platform without his pubic covering, keeping the legs apart. This is said to make the shark keep his mouth wide open and catch on to the bait. Sometimes the magician sits in the same attitude and condition on the beach, singing a song of magical import to attract the shark.

Thus fishing, an activity of great economic importance and a favourite sport all over the Trobriands, ranges from a purely economic pursuit to almost a magico-religious ceremony. In fact, the *kalala* fishing in Labai is surrounded with more numerous and more stringent taboos, and is more bound up with tradition and ceremonial, than any other social activity in the Trobriands. B. MALINOWSKI.

Japan: Folklore.

Hildburgh.

Notes on Some Japanese Methods of Personal Purification after a Funeral. By W. L. Hildburgh. 54

Contact, or even association (including that by relationship), with a corpse is regarded in Japan as a source of ritual uncleanness from which the person who has become thus impure may require early purging, lest he bring misfortune upon himself or upon others. Attendance at a Buddhist funeral being looked upon as a cause of such impurity, a person returning from one is subjected to a form of purification before he (or she) enters his (or her) house. The misfortune which may be brought about by a person newly coming from a funeral is generally ascribed to the wrath of some Kami (*i.e.*, Shinto divinity) who has been offended by the proximity of the impure person.* And that misfortune is thought not necessarily to fall upon the offending person, but to be liable as well to affect some other member of the household—though whether because of some belief in an infectiousness of the state of impurity which may lead to the anger of the divinity falling upon some person actually innocent of offence; or due to a notion that the divinity holds all the members of the household responsible for the affront to him and may strike at the household through any one of its members; or as the result of an idea that while the divinity is angry he ceases to protect any of the household from the lurking supernatural beings seeking to injure them, I do not know. The following is an example showing a misfortune supposed to result from a neglect of the precautionary purification mentioned:—

On returning home from a Buddhist funeral, a boy mischievously omitted to purify himself, by washing his hands in the vessel of water specially provided for the purpose, before entering the house. One of the servants of the household having, soon after this event, become ill, the boy was questioned as to his behaviour,

* When a person has been buried according to the Buddhist rite, then during a mourning period of fifty days (some people say that twenty suffice), while the members of the family are in a state of impurity, "the kamidana must be entirely screened from view with pure white paper " and even the Shinto ofuda, or piona invocations fastened upon the house door must have white paper pasted over them." L. Hearn, *Glimpses of Unfamiliar Japan*, 1894, p. 401.

and, having confessed his neglect, the misfortune was ascribed to his transgression, for which latter he was then severely punished [Chikuzen province].* Similar washing, as a means of ritual purification, is of very ancient standing in Japan—Chinese travellers to Japan, “centuries before the *Kojiki* and *Nihongi* were written,” say that there was a “practice, when the funeral was over, for the whole family of “the deceased to go into the water and wash.”†

A common form of purification for a person returning home after a funeral is the throwing of salt upon him, before he enters the house, by a person who has not attended the funeral [Yokohama]. Similarly, salt, scattered immediately about the room where the corpse has rested‡ and about the threshold, and then swept out, is employed for the purification of a house as soon as the body of a dead person has been taken away from it, just as it is used in the preparation of spots which, for religious or for magical purposes, require to be placed in a condition of ceremonial purity. The anti-spectral virtues attributed to salt lead not only to its employment as a dispeller of evil influences already acquired, but also to its use as a preservative against the acquirement of such influence or against the machinations of evil supernatural beings.

If a person, after attending a funeral, goes to a tea-house before returning home, his purification by means of salt, before entering his own house, becomes unnecessary [Yokohama]. Why this should be my informant (a keeper of a tea-house) did not tell me. I think that possibly the tea taken is thought to serve as a sufficient purification, because the drinking of a cup of tea before leaving one's house in the morning is sometimes believed to keep one safe from accidents while away from home during the day;§ or that, perhaps (as my informant told me that the impurity remains at the tea-house) there is a belief either that the cause of the state of impurity stays in the first dwelling into which its bearer enters, or one that the presence of a more or less noisy crowd of people tends to drive it away from its bearer.|| We may observe, incidentally, that since a tea-house is open to any passing stranger, it may receive unawares at any time a person who is (due to any of the various causes of such impurity) ritually unclean, and that it must therefore be so arranged that no harm shall come to its household or its guests throughout the presence of such a person.

Seemingly closely allied to the belief in the necessity of a personal purification after attendance at a funeral, is the belief that if for some reason—such as the lateness of the hour preventing his return home on the day of the funeral—a person who has been to the funeral sleeps in the house of the deceased during the night following it, that person, in order to avoid some misfortune occurring to him, should sleep in the same house again, seven days later [Yokohama]. There are, however, methods, should the person be unable to repeat his stay at the house, or be seriously inconvenienced thereby, for avoiding the evil results feared. To this end he may, should he be elsewhere than at the house of the deceased on the seventh night, set

* Place names given thus identify the localities in which I recorded the respective beliefs or practices cited, or those where they had been observed by my Japanese informants.

† W. G. Aston, “Japanese Myth,” in *Folk-Lore*, Vol. X, p. 302.

‡ A curious parallel to this is the scattering of salt about the room in which an unwelcome guest has been, with the especial aim that he shall not return to the house. Whether the effect here desired is thought to be based on a clearing away of all psychical traces of the visitor, or whether it is referred to the actions of supernatural beings to whom, perhaps, a message is thought to be conveyed by the scattered salt used as a symbol (*cf.* MAN, 1917, 2), I do not know.

§ J. Inouye, *Home Life in Tokyo*, Tōkyō, 1910, p. 140.

|| In China, a certain character “which means boisterousness of a crowd, has for many centuries been one of the best among devil-expelling charms.” J. J. M. de Groot, *Religious System of China*, Vol. VI., Bk. II, p. 1144.

one of his sandals or his clogs out of doors for the night [Yokohama and Tōkyō]; or he may, in anticipation, cross a bridge before he returns to his home [Echizen; reported at Yokohama]. What the reason for these beliefs is I have not been told. But we may guess that it is connected with the conceptions underlying the beliefs that "For forty-nine days the spirit of the dead wanders in the dark space intervening between this world and the next, and every seven days it makes an advance forward, in which it is materially helped by the prayers of those it has left behind; according to some, the spirit hovers for the same period over the roof of its old home, for which reason many people dislike to remove until the period has terminated from a house in which a member of the family has died, as his spirit would have to hover over a house deserted by those he loved."* The placing of the piece of footwear out of doors is intended, I think, either to give the spirit of the deceased something to return to and to work upon in the place of the owner of the footwear, or else to convey to the spirit the idea that the owner is not in the house, because footwear is operated upon, in order to influence its owner, in various Japanese magical operations, while in some others it appears to me as if intended actually to represent its owner. We might guess that the bridge to be crossed in the Echizen practice must be one over running water, were it not that there are other explanations of the effect of crossing a bridge which may plausibly be advanced, and that the data accompanying my note are insufficient to make a detailed examination of it worth while.

A curious belief, which may be mentioned in connection with the conceptions recorded above, is that if a person has shortly before been bitten by a rat he should not attend a funeral, lest poisoning result from the bite, and he die [Yokohama].

W. L. HILDBURGH.

REVIEWS.

India: Archæology.

Brown.

Catalogue of Prehistoric Antiquities in the Indian Museum. By J. Coggin Brown. **55**

This work deals with the prehistoric antiquities in the Calcutta Museum, about half the volume referring to specimens of characteristic palæolithic form, nearly the whole of the remainder being devoted to specimens of neolithic age, the number of early copper and silver antiquities catalogued being comparatively small. A good deal of doubt has been expressed whether Indian palæoliths, for the most part fashioned of quartzite, though of the same forms as the older drift implements of Europe, are contemporaneous with the latter. This doubt would seem to have been set at rest with regard to one specimen, which is, however, typical in form and technique of a whole series. This implement, which, to judge from the illustration, is a well-worked ovate of St. Acheul type, and comes from the Nerbudda Valley, furnishes "one of the few, but no less decisive pieces of evidence of human existence in late geological times, coeval with the presence of a vertebrate fauna long extinct." It is of Vindhyan sandstone, and was found lying flat and two-thirds buried, in a cliff face under some three feet of the stiff, reddish, mottled, unstratified clay which underlies about twenty feet of gravel containing bones of extinct mammals.

Another specimen of seemingly palæolithic age is an "agate chip" found *in situ* in the bone-bearing beds of the upper Godavari Valley. It is not of characteristic older palæolithic form, and the small size of the reproduction makes it difficult to discuss its affinities; moreover, there seems to be a discrepancy between its size as given in

* Inouye, *op. cit.*, pp. 247, 248.

the body of the work and that of the reproduction, but it is not very unlike certain of the longer, coarser "flakes" from the London gravels and the Egyptian desert.

The neolithic specimens include some good examples from Burmah of the "shouldered" or so-called "spade" celt of Indo-China.

The facility with which the volume can be used, and, therefore, its value, would have been greatly increased if the serial number of each specimen had been given in the lists facing the plates.

C. G. S.

Psychical Research.

Coover.

Experiments in Psychical Research. By John Edgar Coover. Pp. xxiv, **56**
641; \$3.50 (paper). Stanford University, California.

A most interesting and instructive record of work, undertaken chiefly to test, under laboratory conditions, the reality of telepathy, or thought-transference, and (as a secondary issue) clairvoyance, and carried out during four years by thousands of experiments, with a sound understanding of experimental and statistical methods.

Reducing the problem to simple cases, where results may be exactly estimated, Professor Coover began with the guessing of Lotto-Block numbers, the two-place numbers from ten to ninety. The student whose powers were to be tried (or re-agent) sat in an arm-chair, composed his mind, responded to the challenge to guess a number, and then recorded the degree of certainty with which he judged it to be right, the kind of impression (visual, auditory, kinæsthetic) upon which he based his answer, and so forth. The experimenter sat facing the re-agent's back, at a distance varying from 1 to 10 metres. He drew a Lotto-Block from a bag, and if the numbered side came up prepared to hold it in some kind of vivid imagery, with a determined will to communicate it to the re-agent, signalled the beginning of the experiment, and, after 15 seconds, closed it. If the blank side of the block came up, the experimenter did not look at the number, and refrained from thinking of numbers, but signalled the beginning of the experiment as before, and, after 15 seconds, the conclusion of it. As the re-agent never knew whether the experimenter had a number in his mind or not, a series of control experiments, determined by chance (the way the block came out of the bag), was thus carried on along with the positive ones. The results of a thousand experiments show that the successful guesses were not beyond the probability of chance, and that there was no significant difference between the percentages of right guesses when the number was known to the experimenter (whose mind was to be read) and when it was not.

Next came ten thousand experiments on the guessing of playing cards (ace to ten), under conditions of control and of varying the distance between experimenter and re-agent, etc., similar to those described above. Right guesses were counted for the whole card, the colour, the number, the suit. About 100 students of psychology, most of them believers in telepathy, acted as re-agents. The result was that "various statistical treatments of the data fail to reveal any cause beyond chance operating for right cases," and that "no trace of an objective thought-transference is found." One thousand experiments under the same conditions were made with psychics, or "persons reputed to be 'sensitive' to telepathic or clairvoyant impressions"; but their guesses showed "no advantage over normal re-agents as claimants for the capacities of telepathy or clairvoyance."

A third series of experiments upon "the sense of being stared at," and the common belief that if you stare at a man's back he will turn round, furnished less opportunity of obtaining precise results. Such as they were, the results were negative. Re-agents did not know when they were stared at, and thought they were when they were not. But believers in this sort of telepathy will probably object that the

time allowed for the experiment (15 to 20 seconds) was not enough; for is not the ground of the illusion merely this, that if you stare at a man's back *long enough* he will turn round?

Experiments upon subliminal impressions—that is, impressions that fall below the customary limen of perception, though not below the absolute limen of consciousness—show that such impressions have a positive influence upon judgment, and “it must be regarded as more than probable that, as some investigators and critics have suspected, this sort of perception has played a rôle in the evidence for telepathy gathered from thought-transference experimentation and from the séance room.”

Instructive chapters follow upon “Mental Habit,” on the “Application of Mental Habit to Thought-Transference,” upon “Inductive Probability” and the “Infinitesimal Probability.” In this chapter Professor Coover gives examples of some extraordinary occurrences not supposed to have any connection with the spiritual or supernatural, which are at least as astonishing as any to which this connection has been ascribed as an explanation of them; and he observes that “within our field of observation there is an indefinite number of series [of events] of indefinite length in constant process; the infinitesimally probable events in the aggregate of these various series may be expected to occur frequently. The improbable is to be expected in its proper proportion.”

When, at a séance, you hear words spoken and messages given, how much of your perception is objective? Many thousands of experiments upon “Sound Assimilation” show that auditory sensation excited by a word or sentence may be very imperfect, and yet sense may be made of it, whether right or wrong; that “a large part of the perception of English words is contributed by the mind, and that suggestion is a very potent determinant of the language heard.” Much as happens in visual perception.

Part V, by Professor L. J. Martin, gives an account of “Local Ghosts” and an “Experimental Study of the Subconscious.” There are appendices on “Grounds for Scientific Caution,” etc. One can hardly speak too highly of the ingenuity, caution, or industry displayed in this work.

CARVETH READ.

ANTHROPOLOGICAL NOTE.

Magic.

The following is an additional example of the belief that the blood of children can be used to work magic. Commenting on the large number of **57** Spanish Jews in the Balkan peninsula, my Catholic Albanian guide asked me if I knew the reason why they were expelled from Spain. On my replying in the negative, he said that the Jews of Spain had become very ambitious and wished to destroy all the Christians and have the land for themselves. A Jewish magician therefore approached a very poor Christian beggar woman who had two very beautiful children and offered her riches for life, if she would kill one of them and sell him the heart. The woman consented, but she cheated the Jew and killed a small pig and at night took the heart to him. Next day every pig in Spain suddenly rushed into the sea and was drowned. The poor woman then gave information. It was at once obvious that had she fulfilled her promise and given the child's heart all the Christians would have rushed into the sea. The population thereupon arose and expelled the Jews. This, said my informant, was a well known historic fact—pigs and all. He firmly believed in it himself.

M. EDITH DURHAM.

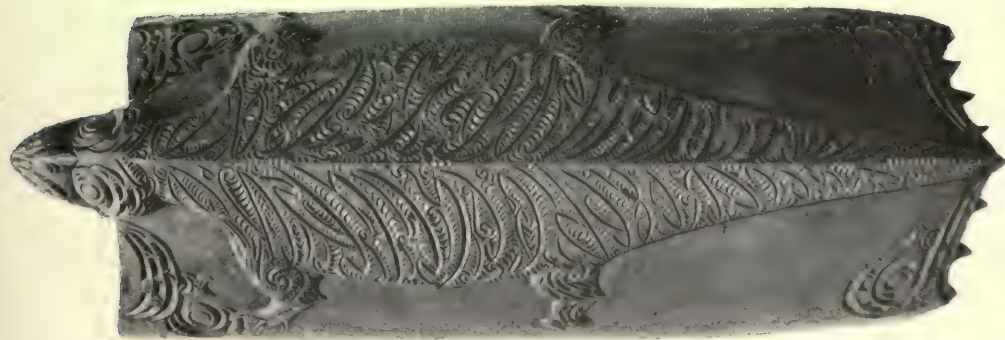


FIG. 1.—LENGTH, 4 FT.



FIG. 2.—FRONT VIEW.
LENGTH, 6 FT.

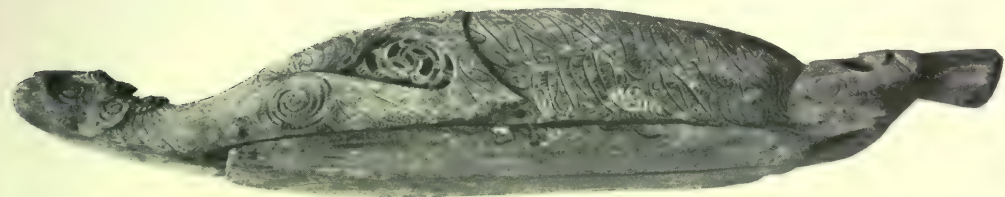


FIG. 2A.—SIDE VIEW,
SHOWING LID AND PERFORATED
CARVING IN ANGLE OF ARM.
LENGTH, 6 FT.

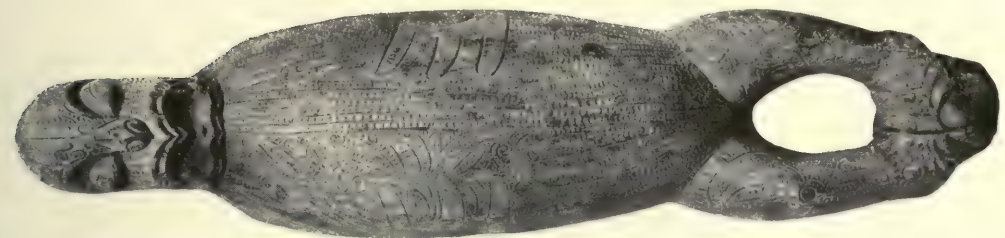


FIG. 3.—LENGTH, 4 FT. 8 IN.

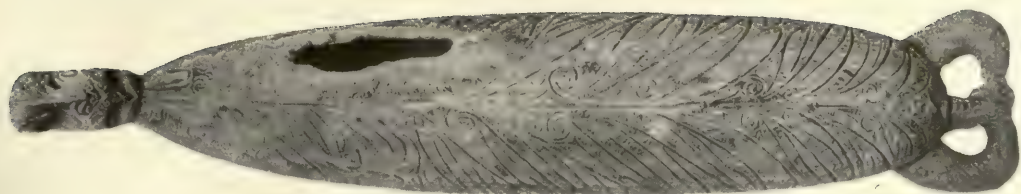


FIG. 4.—LENGTH, 5 FT. 2 IN.

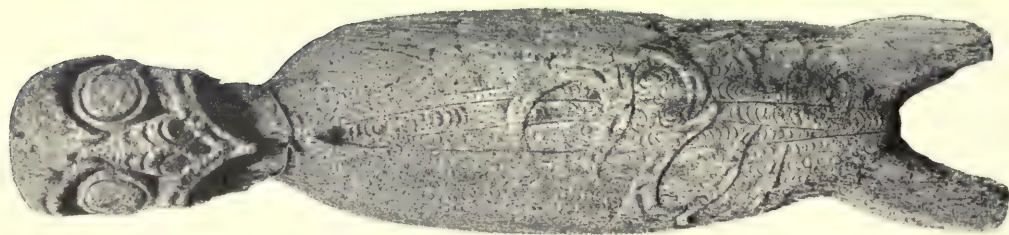


FIG. 5.—LENGTH, 3 FT. 1 $\frac{1}{2}$ IN.

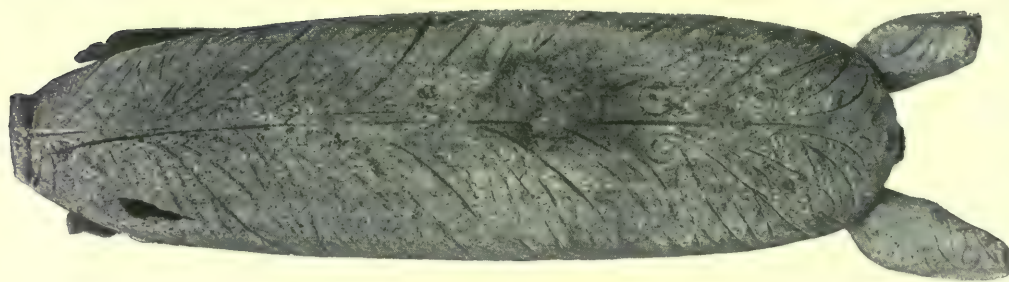


FIG. 6.—LENGTH, 3 FT. 6 $\frac{1}{2}$ IN.



FIG. 8.



FIG. 9.—LENGTH, 4 FT. 2 IN.

ORIGINAL ARTICLES.

Ethnography.

With Plate G.

Rivers.

Maori Burial-Chests. By W. H. R. Rivers, F.R.S.

58

When in Auckland three years ago I suggested to Mr. Cheeseman that the unique collection of burial-chests in his museum should be brought to the notice of European anthropologists. Several of the chests had already been figured, but others had not been recorded, and these have now been figured in MAN, 1918, 49. Mr. Cheeseman also sent new photographs of the chests which had already been published, and these are now shown in Plate G.

All these chests were used in the rite of secondary burial. The bodies of the dead were placed in trees, and after a time, it might be several years, the bones of chiefs were collected and placed in one of these receptacles. Several of the chests figured in MAN, 1918, 49, could be set up in the erect position, and with one exception the chests of Plate F were also placed in this position, leaning against the back of the cave. The exception is that of the chest adorned with the representation of a lizard (Plate G, Fig. 1), which was placed across the mouth of the cave to guard it and the skeleton it contained from disturbance.

The custom of placing the dead or their bones in caves is widely spread in Oceania, but neither elsewhere in New Zealand nor in any other part of Polynesia do we know of such chests. Receptacles, often in human form, are, however, used in Melanesia, notably in the Solomon Islands, to preserve the skull or skeleton. Three of the chests figured by Mr. Cheeseman last month contained the skull only, and were set upright in the ground, in both respects agreeing with the practice of the Solomon Islands. Similarity with Melanesian culture also comes out in the nature of the chests themselves. In the many respects in which the carving departs from the usual characters of Maori art it approaches that of Melanesia.

It is noteworthy that the part of the northern island where these chests have been found is characterised by the prominence of negroid or Melanesian characters in the physical features of the inhabitants.*

The chests are of great interest in connection with the problem recently raised by Mr. Elsdon Best,† and Mr. H. D. Skinner,‡ whether the negroid element in New Zealand is derived from its earliest human inhabitants or is the result of some later migration. These chests were still being made in recent times, and if they were a survival from the funeral practices of the earliest inhabitants it seems very unlikely that they would be found only in one district of the country. Their localised occurrence supports Mr. Skinner's suggestion that the Melanesian element in New Zealand is the result of a relatively late migration.

W. H. R. RIVERS.

Ethnography.

Skinner.

Maori Burial-Chests. By H. D. Skinner.

59

The first recorded examples are two secured by an Auckland dealer, one of which, now in the Melbourne Museum, is described as the better of the two, and is figured by Edge-Partington.§ The other is twice figured by Hamilton,|| who states that both were found "near Auckland." The next recorded are those from North Auckland, secured by the Auckland Museum, eight of which have been figured and

* A. de Quatrefages et T. Hamy: *Les crânes des races humaines (Crania Ethnica)*, Paris, 1882, p. 466; and John Scott: *Trans. New Zealand Inst.*, 1893, Vol. XXVI, p. 63.

† MAN, 1914, 37, and *Trans. New Zealand Inst.*, 1915, Vol. XLVIII.

‡ See No. 59, below.

§ J. Edge-Partington: *Ethnographic Album of the Pacific*, 3rd Series.

|| *Maori Art*, p. 153, and Fig. 3, Plate 24. Also *Colonial Museum Bulletin*, No. 1, p. 70.

described by Cheeseman,* and later by Baessler.† Of eight chests from North Auckland secured by the Dominion Museum, the most interesting example is described and figured by Hamilton.‡ The six examples from Raglan, presented to the Dominion Museum by Mr. A. H. Turnbull, are described and figured by Edge-Partington.§ Of this group the most interesting is a small specimen which Captain Gilbert Mair suggests was designed to hold a placenta. An even smaller one came into the possession of the Dominion Museum with the collection of the late Sir Walter Buller, but its provenance is unknown to the writer. Two more, from the Whangarei district and of the ordinary size, are in the private collection of Mr. W. Fels.

Thus, of thirty-one examples of which the provenance has been recorded, all come from the Provincial District of Auckland. The exact locality of two of these is not stated; twenty-three are from the region north of the general line Whangarei-Kokianga; while the remaining six are stated, on the authority of a dealer, to have been found in the sand-hills at Raglan. The present writer, after examining the condition of the timber from which the chests are made, finds it impossible to believe that these examples were actually recovered from sand-hills. It seems possible that they were secured from some tribal burial cave near the others, and that the persons from whom the dealer acquired them were unwilling that their true hiding-place should be known to their rightful owners. In any case, the distribution of the chests is very remarkable. Not a single example has been thus far recorded south of the Provincial District of Auckland. Dr. Rivers has pointed out their close relationship in function to the bone-chests of Melanesia, and it is to the same region that their decoration, and the decorative art of the whole district from which they come, is most closely allied. The closeness of this alliance is further emphasised by the cranio-metrical work of de Quatrefages and Scott. If the southern tribes of New Zealand and the inhabitants of the Chatham Islands are to be regarded as the descendants of the earliest inhabitants of New Zealand, pushed south by later arrivals, the Melanesian element in the north may be suggested as this later intrusive element. Mr. Best has pointed out that the absence among these northern people of any tradition relating to "The Fleet," which came to New Zealand from Tahiti about 1350 A.D., is evidence of a different origin from that of other tribes. The whole question is obscure, and it seems wisest to await fresh evidence before coming to any definite conclusion on it. It may be remarked, however, that the traditions which tell of a pre-Maori negroid population in New Zealand appear to be at variance with other evidence.

H. D. SKINNER.

Archæology.

Moir.

An Early Mousterian "Floor" Discovered at Ipswich. By J. Reid

60

In a paper published recently|| I referred to the discovery at Ipswich of a floor containing flint implements and flakes fashioned in the Early Mousterian manner, and associated with the bones of animals such as are known to have favoured a cold and rigorous climate. It is the purpose of this note to give a brief description of this discovery, and to figure some of the flint implements, etc. which were recovered. In the early part of 1916 the Ipswich Corporation were constructing a coal-handling plant at the Electric Power Station, Constantine Road. This work necessitated the making of an excavation about 20 feet square and 16 feet

* *Trans. New Zealand Inst.*, 1906, Vol. XXXIX, p. 451.

† *Zeitschrift für Ethnologie*, 1905, p. 971, and Plates.

‡ *Bulletin of the Dominion Museum*, No. 3, p. 110.

§ *MAN*, 1909, 18.

|| Moir, J. Reid: "On Some Human and Animal Bones . . .," *Journ. Roy. Anthr. Inst.*, Vol. XLVIII, July-December, 1917.

deep. Soon after the work was begun I received an intimation from Mr. Frank Ayton, chief engineer and manager at the power station, that the men employed in the digging were finding some animal bones, and he was kind enough to ask me to

FIG. 1.



CROSS-SECTION OF RIVER GIPPING SHOWING
APPROXIMATE POSITION OF EXCAVATION.

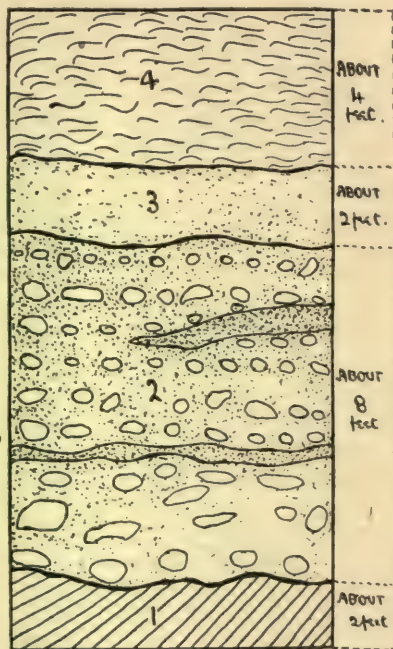
J.R.M.
1918.

visit the excavation and to preserve any relics that might be found. As will be seen from Fig. 1, the site of the discovery under description is situated in the bottom of the Gipping Valley, the surface of the ground at the electric power station lying at a level of about 13 O.D. The digging had not proceeded very far before the hole was partly filled with water, and special arrangements had to be made to cope with it. The presence of this water made it impossible for me to see, with my own eyes, the actual strata passed through, but Mr. Ayton has kindly furnished me with the following particulars, which I have no hesitation in regarding as in every way trustworthy. Moreover, they tally in a remarkable manner with the details of a section, exposed about half a mile up the Gipping Valley, and with which section I am intimately familiar. It appears, then, that the strata exposed at the electric power station are as follows (Fig. 2). I commence with the lowermost bed :—

(1) Loam (about 2 feet) containing unrolled Mousterian flint implements and flakes and numerous animal bones. (2) Stratified gravel (about 8 feet), in which, some years ago a beautiful flint blade of Solutrian workmanship was found, and containing also rolled examples of Acheulean and earlier implements. (3) Pure sand (about 2 feet). (4) Modern alluvium (about 4 feet) showing signs of having been dug into at some period.

I illustrate (Fig. 3) a typical Early Mousterian coup-de-poing or hand axe, which, it will be noticed, has one face much flatter than the other. It will be noticed, also, that while the angle A is rounded the angle B is square, and this peculiarity has been shown to be characteristic of the Early Mousterian hand axes.* Fig. 4 illustrates a Mousterian point made from a thickish flake of flint. The flakes recovered are large, and in each case exhibit a faceted striking-platform, and the truncated remains of other flake-areas on the upper face, showing that these flakes were struck from a "prepared" block of flint such as was in vogue in Mousterian times at Baker's Hole, in the Thames Valley, and elsewhere.† The

FIG. 2



DIAGRAMMATIC DRAWING OF
SECTION.

1. Loam with Mousterian flint implements etc.
2. Stratified gravel with Solutrian blade and rolled Acheulean and earlier implements.
3. Sand
4. Modern alluvium

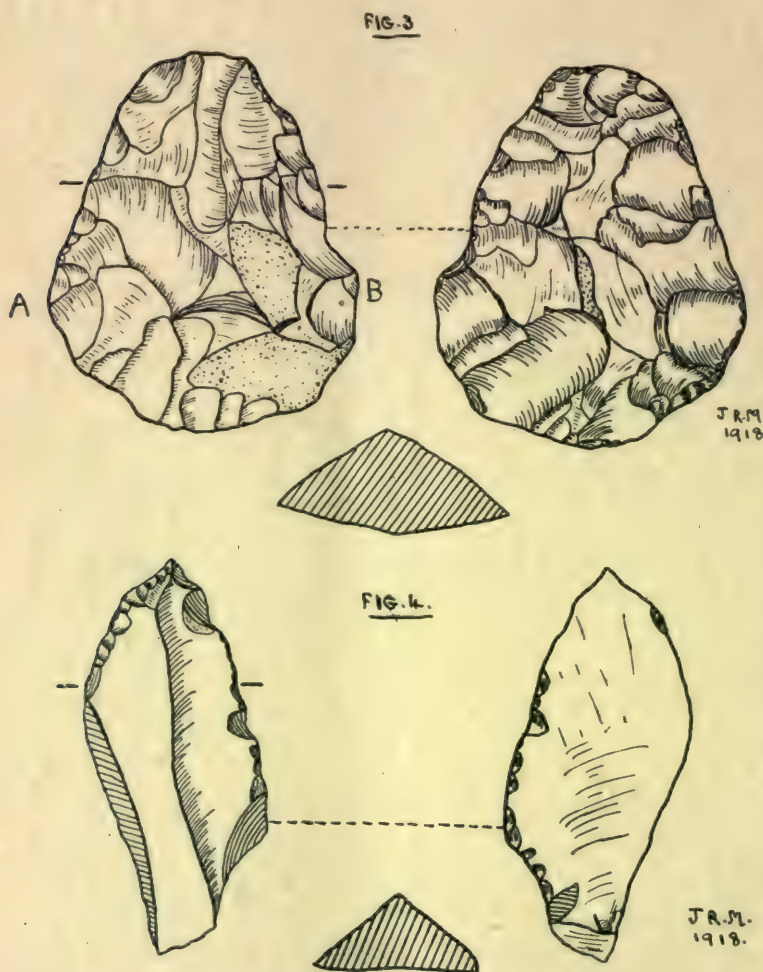
* Smith, Reginald A. : *Archæologia*, Vol. LXVII.

† Smith, Reginald A. : *Archæologia*, Vol. LXII.

flint implements and flakes are quite unrolled and unpatinated, and it is necessary to conclude that the loam shown in Fig. 2 contains an actual working-site of Early Mousterian times. The bones were identified by Professor Arthur Keith, F.R.S., and are referable to the following animals: Elephant (?) reindeer, ox (*Bos primigenius*), and goose (?) The bones of the reindeer were the most numerous, and many showed splitting for the extraction of marrow. These remains, like the flint implements and flakes, are quite unabraded, and show a remarkable condition of preservation.

This discovery appears to demonstrate clearly that in Early Mousterian times the River Gipping had eroded its valley to a depth of 14 feet or more below

the present surface of the alluvium, and that since the occupation of the ancient floor by man, gravel and other deposits have been laid down over it. It is somewhat difficult at present to correlate the Early Mousterian floor under description with the Upper Mousterian and Aurignacian floors discovered in the brickfield of Messrs. Bolton & Co., Henley Road, Ipswich,* but further research may make such correlation possible. It may be remembered that in the hill-wash overlying the Aurignacian floor mentioned above, two implements of Early Solutrian type were found.



It is thus possible that this hill-wash may be the equivalent on the high ground, of the valley gravel shown in Fig. 2, which, as has been stated, contained a flint blade of typical Solutrian workmanship.†

The implements and bones described in this note will, it is hoped, soon be on exhibit in the Museum, High Street, Ipswich.

J. REID MOIR.

* Moir, J. Reid: "On Some Human and Animal Bones . . ." *Journ. Roy. Anthr. Inst.*, Vol. XLVII, July-December, 1917.

† Hancox, E. R. H.: *Proc. Suff. Arch. and Nat. Hist.*, Vol. XL, Part 1 and Part 2, Fig. 4.

Great Britain: Witchcraft.

Murray.

Witches' Familiars in England. By M. A. Murray.

61

The usual conception of a witch's familiar is a small animal or bird, nourished by sucking the witch's blood, carrying out her wicked behests, and animated by an evil spirit.

This form of familiar is so strictly limited to England that Hutchinson is able to say, "I meet with little mention of *Imps* in any Country but ours, where the Law makes the feeding, suckling or rewarding of them to be Felony."* They are referred to by Forbes, "To some he [the Devil] gives certain Spirits or Imps to correspond with, and serve them as their Familiars, known to them by some odd Names, to which they answer when called. These Imps are said to be kept in Pots or other Vessels."† Though the Scotch law made these provisions, the Scotch trials show no record of such familiars, but the description applies accurately to the imps of the English witches. The eastern side of the country, particularly the counties of Essex, Suffolk, Huntingdoushire, and Rutland are the places in which this kind of familiar is most common; it is also recorded in Lancashire, Somerset, Devon, and Northamptonshire.

These familiars were small animals, cats, ferrets, mice, moles, toads, and occasionally dogs. They were always named; were kept in pots or boxes lined with sheep's wool; were fed on milk, bread, raw meat and the witch's blood; and were used for working magic. When the religion was at its height, the imp was probably used for good as well as bad purposes; but as the cult was not recorded until decadent, we find the familiars used only for evil. The witch might have more than one familiar; she then used one for working magic on human beings, the others for bewitching cattle, horses, or inanimate objects.

The imp being regarded as a substitute of the Devil, it is spoken of indifferently either as "the Devil" or by its proper title of "familiar." Hellen Clark, an Essex witch tried in 1645, "confesseth that about six weeks since, the Devill appeared to her in her house in the likeness of a white dog, and that she calleth that familiar Elimanzer. . . . Rebecca Weste told this informant that the Devill appeared to them in the shape of a dogge; afterward in the shape of two kitlyns; then in the shape of two dogges; and that the said familiars did doe homage in the first place to the said Elizabeth Clarke, and skipped up into her lap, and kissed her."‡

The witch-trials of Essex extend over more than a century, and contain in detail practically all the facts. The information from trials in other parts of the country is useful for supplementing and for clearing up a few obscure points.

The earliest of the Essex trials is that of the witches of Hatfield Peveril, in 1556. The accused were Elizabeth Francis, Mother Waterhouse, and her daughter, Joan Waterhouse. Elizabeth Francis "learned this arte of witchcraft at the age of xii yeeres of hyr grandmother whose nam mother Eue. Item when shee taughte it her, she counseiled her to renounce *God* and his work and to geue of her bloudde to Sathan (as she termed it) whyche she deliuered her in the lykenesse of a whyte spotted Catte, and taughte her to -feede the sayde Catte with breade and mylke, and she dyd so, also she taughte her to cal it by the name of Sathan and to kepe it in a basket. . . . Item, that euery tyme that he did any thyng for her, she saide that he required a drop of bloude, which she gaue him by prycking herselfe, some time in one place and then in an other, and where she pricked herselfe there remayned a red spot. . . . When she had kept this Cat by the

* Hutchinson: *Historical Essay*, p. 77.

† Forbes: *Institutes of the Law of Scotland*, II, pp. 32-4.

‡ Howell: *State Trials*, IV, 839, 841.

"space of xv or xvi yeare, and as some saye (though vntruly) beinge wery of it, she came to one mother Waterhouse her neyghbour, she brought her this cat in her apron and taught her as she was instructed before by her grandmother Eue, telling her that she must cal him Sathan and geue him of her bloude and bread and mylke as before." Mother Waterhouse appears to have followed the instructions faithfully; the most interesting part of her evidence is the transference of the magical power of one animal to another, and the charm by which the transference was effected: "She receyved this cat of this Frances wyfe in the order as is before said . . . She (to trye him what he coulde do) wyld him to kyl a hog of her owne, which he dyd, and she gaue him for his labour a chicken, which he fyrste required of her and a drop of her blod. And thys she gave him at all times when he dyd anythynge for her, by pricking her hand or face and puttinge the bloud to his mouth whyche he sucked, and forthwith wold lye downe in hys pot againe, wherein she kept him . . . Also she said that when she wold wyl him to do any thinge for her, she wolde say her Pater noster in laten. Item, this Mother Waterhouse confessed that shee fyrst turned this Cat into a tode by this meanes, she kept the cat a great while in woll in a pot, and at length being moved by povertie to occupie the woll, she praid in the name of the father and of the son and of the holy ghost that it would turne into a tode, and forthwith it was turned into a tode, and so kept it in the pot without woll."*

The second set of trials was of the witches of St. Osyth in 1582. Here again the evidence goes to prove that the familiars were small animals kept and fed in a special way. Thomas Rabbet "saith, that his said mother Ursley Kempe alias Grey hath foure severall spirites, the one called Tyffin, the other Titty, the third Pigine, and the fourth Iacke; and being asked of what colours they were, saith, that Tyttey is like a little grey Cat, Tyffin is like a white lamb, Pygine is black like a Toad, and Iacke is blacke like a Cat. And hee saith, he hath seen his mother at times to giue them beere to drinke, and of a white Lofe or Cake to eate, and saith that in the night time the said spirites will come to his mother, and sucke blood of her upon her armes and other places of her body." Ursley Kemp gave evidence against mother Bennet and Ales Hunt: "About a quarter of a yeere past, she went vnto mother Bennets house for a messe of milke, the which she had promised her. But at her comming this examine saith that shee knocked at her dore, and no bodie made her any answere, whereupon shee went to her chamber window and looked in therat, saying, ho, ho, mother Bennet are you at home: And casting her eyes aside, shee saw a spirit lift up a clothe, lying over a pot, looking much like a Ferret. And it beeing asked of this examine why the spirit did looke vpon her, she said it was hungrie. . . . About the foureteene or fifteene day of Januarie last, shee went to the house of William Hunt to see howe his wife did, and shee beeing from home, shee called at her chamber window and looked in, and then espied a spirite to looke out of a potcharde from under a clothe, the nose thereof beeing browne like vnto a Ferret." Mother Bennet herself confessed that "about two yeeres past there came vnto her two spirits, one called *Suckin*, being blacke like a Dogge, the other called *Lierd*, beeing red like a Lion, Suckin this examine saith is a hee, and the other a shee. . . . Many times they drinke of her milke bowle. And when, and as often as they did drinke of the mylke: this Examine saith they went into the said earthen pot, and lay in the woll." In the evidence of Ales Hunt and her step-daughter Febey the recorder has made a curious mistake. Ales confessed to having two spirits, "like unto little Coltes"; Febey stated, "yt shee hath seen her mother to haue two litle thinges like

* *Philobiblon Society*, VIII: "Examination and Confession of certain Witches at Chelmsford," pp. 24-29, 29-32. Mother Waterhouse was executed.

"horses, the one white, the other blacke, the which shee kept in a litle lowe earthen pot with woll, colour white and blacke; and that they stode in her chamber by her bed side, and saith that she hath seene her mother feede them with milke." From the size of the animals in question and judging by similar animals employed as familiars, the word used was probably "cote," a provincial pronounciation of "cat"; but the recorder thinking it was "colt" elaborated it further into "horses."

The third set of trials in Essex took place in 1645; these are the best known, as it was here that Matthew Hopkins obtained notoriety as a witch-finder. The confessions of the women show the continuation of the customs of their predecessors, which were also known both before and after in other parts of the country: "Rose Hallybread saith, that about fifteen or sixteen years since, there was an imp brought to her house by one Goodwife Hagtree, which imp this examinant entertained, fed it with oatmeale, and suckled it on her body, for the space of a yeer and a half, or thereabouts, and then lost it. . . . Susan Cock saith, that about three or four yeeres since, one Margery Stokes, the examinant's mother, lying upon her death bed, and this examinant comming to visit her, shee said "Margery desired this examinant privately to give entertainment to two of her imps. One of the said imps was like a mouse, and the other was of a yellow colour about the bigness of a cat . . . and the same night her said mother dyed, the said two imps came to her accordingly, and sucked on her body. . . . Anne Cooper hath had three imps suckled on the lower parts of her body. The said Anne offered to give unto her daughter Sarah Cooper an impe in the likeness of a gray kite [? cat] to suck on the said Sarah."*

The Huntingdonshire witches, tried in 1646, had familiars of the same kind as the Essex witches. Elizabeth Weed confessed that "there did appeare unto her three Spirits, one in the likeness of a young man or boy, and the other two of two Puppies, the one white and the other black." Frances Moore "saith that about eight yeares since she received a little blacke puppy from one *Margaret Simson* of great *Catworth*, which dog the said *Margaret* had in bed with her, and took it thence when she gave it to this Examinee. The Examinee further saith, that the said *Margaret* told her, that she must keep that dogge all her life time; and if she cursed any Cattell, and set the same dog upon them, they should presently dye, and the said *Margaret* told her that she named it already, his name was *Pretty*. And the said Examinee further saith, that about the same time goodwife *Weed* gave her a white Cat, telling her, that if she would deny God, and affirme the same by her bloud, then whomsoever she cursed and sent that Cat unto, they should dye shortly after. Whereupon the said Examinee saith that she did deny God, and in affirmation thereof shee pricked her finger with a thorne, whence issued blood, which the Cat presently licked, and the said goodwife *Weed* named the cat *Tissy*. And she further saith, that she killed the said Dog and Cat about a yeere since." Jane Wallis said that, when "Blackman" came to her, "he told her he would send one Grissell and Greedigut to her, that shall do anything for her. And after Blackman was departed from her, within three or 4 dayes, Grissell and Greedigut came to her in the shapes of dogges with great brisles of hogges hair upon their backs."†

The evidence, even in the few extracts given above, shows that the sucking familiar is common in these later trials, it is, however, rare in the sixteenth century. It is therefore possible that it was a late development, deriving from the witches' ritual of pricking themselves and then letting the animal lick off the resulting drops

* Howell, IV, 852, 853, 845.

† Davenport: *Witches of Huntingdon*, pp. 1, 5, 12.

of blood. The facts are, however, so definitely stated, that there seems little doubt that in the seventeenth century the English witches actually trained the animals to suck some portion of their (the witches') bodies. One of the physical characters of witches was the supernumerary nipple. This was in itself considered a proof that the person was a witch; the nipple, or "teat," as it is usually called, being given to the witches by the Devil as his mark. As the supernumerary nipple secretes milk it was very possibly used for the purpose of suckling the familiar.

The evidence of the Lancashire witch, Margaret Johnson, in 1633, shows that both methods were in use among the witches at that time. She "sayth, yt such "witches as have sharp bones given them by the devill to pricke thein, have no "pappes or dugges whereon their devil may sucke; but their devill receiveth bloud "from the place, pricked with the bone; and they are more grand witches than any "yt have marks. Shee also saith, yt ye devill (after he begins to sucke) will make "a pappe or dugge in a short tyme, and the matter which hee sucks is blood. Shee "alsoe saith, yt when her devill did come to sucke her pappe, hee usually came to "her in ye liknes of a cat, sometymes of one colour, and sometymes on (*sic*) an "other."*

The remarkable fact about the sucking familiar is its limited distribution, both geographically and chronologically. It does not occur in any other country than England, and even there it is not found further north than Lancashire. It would seem, from the evidence, that the custom arose in, or was introduced into, the eastern counties, and spread thence across the country. There is, however, nothing to show from what part of Europe such a custom could have been brought; neither the French nor Belgian trials give any indication of familiars used in this way. It is impossible to believe that the custom arose suddenly all over England in the seventeenth century, yet the earlier trials, though very detailed, never refer to it. Even to regard it as a development of the original pricking by the witch of her own person, as I have suggested above, does not explain the apparently sudden adoption of the custom in the whole of England.

M. A. MURRAY.

India.

Panikkar.

Religion and Magic among the Nāyars. By K. M. Panikkar.

62

The religious beliefs of the Nāyars show an extraordinary mixture of Hindu and Dravidian cults. All the temples are dedicated to Krishna Siva or Kartyayani. There are also a few *kavus* or groves for the worship of the lesser Hindu deities. But the important point with regard to this is that the Nāyars are as a whole a people almost without a religion,† and they use Hindu temples for practices which receive no sanction even in the generous vagueness of that creed. The religious conceptions of Hinduism have but the slightest influence on the Nayar community as a whole. It is quite true that there are a good many devout Hindus among the Nāyars, but the very fact that the distinction of Saiva-ism Sakti-ism, Vaishnavism, &c., have not reached them is sufficient proof that though they have been Hinduised in form, and have belonged to the Hindu fold, their primitive beliefs have been survived to a great extent.

Nothing shows so much the extreme persistence of primitive culture, even in the face of higher civilising agencies, than the wide and almost universal acceptance of spirit-worship, and the almost entire absence of religious life, among the Nāyars, after at least twenty centuries of contact with Hinduism. Their contact with religions has not been limited indeed to Hinduism. The Jews flying after the destruction of their Temple found refuge among the Nāyars, and have lived in their

* Whitaker: *History of Whalley*, p. 216.

† See the discussion following.

midst for nigh 2,000 years. The apostle St. Thomas is supposed to have planted a community of Syrian Christians among them, who also have lived side by side with the Nāyars as their social inferiors in Malabar for almost the same length of time. Ever since Mohamed founded his religion in Arabia, Allah has found faithful worshippers in Malabar who moved with equal status among the Nāyar population. The beautiful creed of Gautamā Buddha had for long its devout votaries in the land of the Nāyars, and traces of Buddhist monasteries and survivals of Buddhist worship still abound. The militant Romanism of the Holy Inquisition, and the no less militant Protestantism of the Dutch, had their chance in turn for at least a century and a half. Yet with all the great religions of the world to choose between during the last 2,000 years, it is nothing short of marvellous to see the Nāyars—who have, it must be remembered, assimilated a very great deal of the material and intellectual culture of their neighbours, and more than that, excelled them in literature and music—still maintain with undiminished vigour their spirit-worship, black magic, and demoniacal ceremonies, and be devoid of almost every element of true religious life.

We may be accused of the "narrow use of a wide word," in the phraseology of Tylor, when we deny that the Nāyars have any religion apart from a veneer of Hindu influence. Their beliefs are mainly magical. Here, of course, I am treading on very dangerous grounds, dangerous even to the initiated, but fatal to the novice. In this essay I have taken the distinction between religion and magic as being primarily a question of method rather than of intention or possible effect. The orthodox French opinion that the difference between magic and religion is that the latter is social while the former is anti-social, has been proved by Mr. E. S. Hartland and Dr. Marett to be wholly untenable; while the contention of Dr. Marett himself,* that the difference between magic and religion lies in the attitude of society towards them, seems also to be inadequate.

Among the Nāyars there is an implicit distinction between practices to propitiate a god and those with which to bully a spirit. Bullying a spirit for purposes of social benefit I have not considered to be religion, though it is recognised by society as beneficial, because it does not possess the emotional and the psychological elements which Dr. Marett himself has with great truth insisted on as the essence of religion.† I have called such practices magical, not only because they lack the emotional and the psychological elements of religion, but also because the fundamental presupposition in such performances is the power wielded by the magician, the *orenda* which he has acquired, over the ghosts.

This is very clear from the Nāyar ideas of *Thēvar* and *Pisachu*. *Thēvar* can be propitiated, but never conquered; while a *pisachu* (or ghost), though superior to man in power, intelligence, and will to do harm, can be rendered harmless and kept under control by magical practices. The former conception is clearly Hindu, and relates only to Hindu gods. The spiritual ideas of the Nāyars themselves seem to be confined to ghosts, spirits, and to a comic elf called Kutti-Chāttan.

Before we proceed to consider them, the position of the magician in the Nāyar community has to be made clear. It is generally taken for granted by anthropological writers that wherever social life is regulated by magical practices the Shaman comes to be held in reverence. It is very interesting, therefore, to notice that the Nāyars never accepted the superiority of the magician, and never accorded him any privilege. The magico-medicine man is, on the other hand, considered to be a sort of servant-in-attendance on a nobleman's family, something like a family doctor. The explanation that it is due to the warlike character of the Nāyars is

* *Anthropology*, p. 210.

† *Threshold of Religion, Essays, Pre-animistic Religion, the Birth of Humility.*

clearly inapplicable, as the magician attained kingly powers among the Masai, for example, whose society is also organised for purposes of war. The fact that the Kaniyan (or the magico-medicine-man) is not only not venerated, but actually considered an inferior, may be more due to the effect of caste-system, which places Nāyars high among the social scale.

The Kaniyan is, of course, recognised as a necessary person. He gets from all the houses of the village settled remuneration, mostly in cocoa-nuts. He is not otherwise paid for ordinary consultation, and he is bound to attend to every case in the village without fail. For special exertions of his magical powers he has special payments settled by village custom. He has power, both inherited and acquired, to cast off spirits, to perform preventive magic, and keep general control over ghosts.

There are supposed to be three kinds of spirits, *Prêtam*, *Bhutam*, and *Pisachu*. *Prêtam* is the spirit of a dead man. The ghosts of men who died in the ordinary course of events are not really *prêtams*, because they do not wander about to overpower people and drink their blood. It is generally the ghosts of men who died as a result of foul play, or by accidents such as drowning, or by terrible diseases such as small-pox and cholera, that wander about at nights. *Bhutam* is seen generally in marshy districts, and does not always hurt people unless they go very near him. *Pisachu* is a general spirit of the air, causing such diseases as small-pox. All these spirits can be seen. At night their mouth is full of fire of different colours, but it throws out no rays. That it throws out no rays is important, because therein is supposed to lie the distinction between an ordinary light and the fire in the mouth of a spirit.

The *prêtam* is supposed to hover round its burial place or the place of its accident. Everyone is warned off such a place at night time. The hours during which these *prêtams* appear are between 9 o'clock in the evening and 3 in the morning. It must be noticed here that the *prêtam* of a "black-magician," as distinct from a social magician like the Kaniyan, has more power to do mischief; it has more *orenda*, so to say. The man who practises black magic invariably dies a violent death and his *prêtam* hovers round the scene of his former activities.

"Man dreads above everything else," says S. Reinach,* "illness and death, "punishments inflicted by the angry spirits with which his imagination peoples this "world." This is absolutely true with regard to the Nāyars. Disease is generally believed either to be the outcome of offending a god or due to the magic performance of interested relations. Preventive sacrifice is very common, and every year all respectable Nayar families perform some sort of propitiation ceremonies in the village temple. If a whole village is ravaged by some epidemic, the villagers inquire into the matter through the astrologer, and if he finds, as he usually does, that it is due to the wrath of the village god or goddess, ceremonies of various kinds are at once undertaken, and goats are offered as sacrifice, and sometimes a *Desavalathu*, a procession of the people with images around the village, is performed.

But such occurrences are rare. Only epidemics are put down to the wrath of offended gods. Other diseases, as well as misfortunes, are put down to the influence of *pretams*, bribed into action by jealous or covetous relatives. When any great misfortune, such as a succession of deaths, happens in a family, the first thing that is done is to consult the astrologer, who is sure that a ghost is working it under the influence of magic. His prescription is, of course, counter-magic to be performed by himself. An offence to a god can easily be rectified if one does some elementary sacrifices, but the performance of counter-magic is neither so inexpensive nor so easy. First of all one has to get rid of the evil already done. For that elaborate

* *Cults, Myths and Religions*, p. 37.

ceremonies may be necessary. Secondly, ceremonies to keep one immune from future attacks are essential. If it is any woman who is possessed of the devil—and it is women who generally suffer from these things—an expensive and elaborate devil dance called Kolam-Thullal has to be performed. For this the village has to be informed, and each family in the village is supposed to contribute something in kind to the expenses and take its share in the work. The ceremony is as follows.

Preparations for the dance must begin a good many days beforehand. The Kaniyan of the village, with twelve others of his people, come to the house where the ceremony is to be performed, and each of them puts on a mask made for the occasion and paints himself in such a way as to look really terrible. The mask of each has a different expression. At about 8 o'clock in the night the girl (or girls) possessed of the devil is brought in front of the house, where are gathered all the people of the village. The whole place is illuminated with big lamps, and the girl sits alone, sometimes supported by her mother. Then one by one the masked magicians come before her and execute most frightening dances to the accompaniment of terrifying music. In dancing they make various gestures, possibly with a view to mesmeric effect, and throw various sorts of powder, and "*rudhiram*," prepared to look very much like blood, is brought very much into prominence. Dancer succeeds dancer, each more terrible looking than his predecessor, and the poor girl loses control of herself and falls into a sort of hysteria, in which the devil in her confesses where it came from and who prompted it, &c. In that case the dance is supposed to have been successful, and the devil is supposed to have been cast out.

This Kolan Thullal is performed on various occasions. The only time I have witnessed it was in 1913 when passing through a village situated in the very heart of the country. The "subject" on that occasion was a child-mother of fourteen, and the reason for the performance given by her brother, when asked by me, was that the girl had fainted four or five times during the month "without any cause," and that they had found out through the astrologer that her husband's relations had been trying to cause trouble by evil magic.

A milder and less expensive form of the same dance is Vêlan Thullal. In this only one man dances, with almost the same paraphernalia as the Kaniyans have for Kolam Thullal. This variety, however, is generally used only to cure children.

Such performances are only for the ghosts of dead men who have entered into girls or children. But if Kutti-Châttan tries to do harm, these practices are of no avail. Kutti-Châttan (sometimes merely Châttan. Kutti means boy, a term of endearment; Châttan is supposed to be a corrupted form of satan), is in no sense a god. He is something like Puck, much inclined to mischief. He is supposed to be a dwarf, though he can assume any other form, or remain invisible, as he chooses. He never goes out of his way to harm anyone, though if anybody injures him once, Kutti-Châttan never forgives, and keeps on troubling him for life. His favourite method of annoying anybody is by throwing stones at the house or dropping unclean things in the food. He may do so without interruption, which would render life almost impossible. He is supposed to have no fingers, and therefore his vices can be thwarted by people who know it. For example, he cannot pick up things if kept in a place high above his reach, unless, of course, there is something near by on which he could climb. He cannot untie a knot, as he does not possess fingers, though he can open the strongest lock. What rich people do to keep their money out of his reach is to tie a knot on the purse and keep it locked in a safe, the latter precaution being necessary against human hands that possess fingers.

Kutti-Chāttan can, of course, be tamed by magicians, and bribed to do whatever his patrons like. There is a story that a Brahmin landlord, who was also a magician, tamed a Kutti-Chāttan and used him for the purpose of keeping a watch on his things. A Christian tenant of his who had gone to pay the rent, not knowing the existence of the invisible and mysterious detective, stole certain things and took them home with him. But lo! Kutti-Chāttan had followed him, and the man was found dead next morning, and the stolen things were in their place. Such is the power of Kutti-Chāttan, the household elf of Malabar.

Whether the practices here narrated and the belief in the existence of a "naughty elf" amount to religion depends very much upon the definition we give to it. Though they are distinctly social and possess social sanction, I do not think it can be called religion, because there is a fundamental difference in the emotional and psychic aspects of religious experience and practice and such social beliefs and customs as I have described here.

But side by side with this there also exists "black magic"—sinister, selfish, and anti-social. It is fast disappearing, more as a result of economic pressure than because of any growing disbelief in it. A young man has no time now to devote himself entirely to sacrificing goats and birds all night and chanting formulæ so that he might become possessed of magical power. Those young men who have devoted themselves to such practices are, however, looked upon with great fear. The community does not like such practices, and though these magicians may excite fear, they are also aware of the general belief that they will some day come to a disastrous end.

Their practices are carried on in secret, and nobody knows what they do except those initiated. Their assistance is procured only by people who want to do harm to others, or satisfy ignoble desires. A man often gets the help of a magician of this sort to perform his "art," so that an enemy of his who has gone on a pilgrimage may not return. They are avoided by all decent people, and society in general, though it fears their "art," considers them charlatans.

There are many minor superstitions that can be only briefly noticed here.

The Evil Eye.—The magical effect of the evil eye is a matter of very serious concern among Nāyar women. I remember being taken to task for telling a woman how healthy her boy looked, and must add that I felt as if I had been convicted of a heinous crime when, four or five days later, I was told that the child was ill. The entire feminine opinion of the village was convinced that the child was suffering from my evil eye, and a good many *mantrams*, or magical formulæ, were said over it before the child was well again. With this idea of evil eye is bound up what is known as *kari-nakku*, or black tongue. When a man with *kari-nakku* utters anything it has effect at once. When the evil eye and *kari-nakku* are combined it has "much *orenda*," as an Anglokin would say. If your newly built house is looked upon with an evil eye, and some good expression used by such a man about it, a lightning might set fire to it and destroy it the same night. If your mango tree is full of fruit this year, and a man with an evil eye and *kari-nakku* looks at it and says, "How fortunate," it might happen that for years to come it would bear no more fruit. If an envious woman, aroused by the green-eyed monster of jealousy remarks how pretty a girl is, her hair might begin to fall off, her colour might fade, and her cheeks might lose the bloom.

The fact to notice with regard to this is that you have to say complimentary things to effect evil. If you said how ugly a pretty girl is it would not affect her. You must say, out of your heart, how beautiful she is, and then it might have effect. Everything is supposed to depend on whether it is said with or without

design. If anything is said with design there would be no effect. Only when such exclamation comes out of the heart that it has the power to do evil.

Koti.—Another evil-working power is *koti*. The word literally means desire, but as an evil force it works only when a hungry person sees a rich and healthy fellow eating a good meal. If a poor man sees you eat and his mouth waters at the delicacies before you, you are sure to suffer from his *koti*, you will get stomach-ache and even dysentery. It is the particular look of the hungry man that has the evil effect. When once a man begins to suffer from another's *koti*, the only way to get over it is to eat some salt over which some *mantram*, or magical formulæ, have been repeated.

The *tabus* which are prevalent among the Nāyars are too many to be described in detail here. A few examples will show how, even in the most important matters, life is regulated in primitive society. The reason for such prohibitions, as M. Reinach points out, is to live at peace with the spirits that are supposed to surround you.

You are prohibited from eating your food at dusk. It is supposed to be an awful sin, because everything is considered to be in "a state of suspended animation" in the very short period which marks the transition from a hot tropical day to a cool and breezy night. You cannot do anything at that time except bathe or pray. There are *tabus* on what you may do on particular days of the week.

"Ezāzcha Kulichalum

Vyāzcha Kulikkarutu."

This is a typical example of the Nāyar *tabu*. Its meaning is this: "Even if you have an oil-bath on the seven days of the week don't do it on a Thursday." Though there is no reason assigned for such a prohibition there is a sufficiency of rhyme, and I must say that I never knew anyone who took an oil-bath on a Thursday except people who take it every day.

The *tabus* extend to the way in which you sleep. You are not supposed to sleep with your body north to south or west to east. The reason, I believe, is that the spirits of the dead are supposed to live in the south and in the east, and if you lie with your head facing them you might become possessed of them.

There are certain days of the lunar month on which no one may start on a journey :—

"Yama Rudrāhi Muppūram

Trketta iya ēzhu Naal

Vitakkil vilāyā Bhūmi

Pōkunnakil avan varā."

On the seven days presided over by the seven stars thus enumerated, if a land is sowed, no seed will sprout; if anyone starts on a journey, he will not return.

I remember a curious story connected with this. Some four months before leaving for England I had to see the Inspector of Schools in Travancore to get my leaving certificate. The only day available for me was one of these *tabu* days, and, in spite of the protests of everybody else in the house, I set out on my business. When I reached the capital of the State the Inspector of Schools had left on circuit, an hour before my arrival, to the place where I started from. I followed him there, but when I arrived he had left the place, and as a result of continuous journeying and bad food I was laid up in bed through a physical breakdown. It was true that if I had not started on that *tabu* day, but had the patience to wait for another twenty-four hours, the Inspector of Schools would have come to the town where I was living; it was also true that I came back very ill. Everyone, therefore, took it for granted that all this ill luck was due to my starting on a bad day. Many are the stories that are told of people suffering great misfortunes due to starting

on these bad days, and there is, as M. Reinach would say, "a vast oral tradition," of leading cases" connected with it. I daresay my case will go down as a most authentic one, as the facts are undoubtedly true; only the explanation is doubtful.

Tabus like this can be mentioned without end, but it is useless to do so, as they all seem to have the same "rationale"; that is, you will break your peace with the world of demons and ghosts that surround you, and bring down upon yourself their wrath, if you break any one of these rules. *Tabu* among the Nāyars is essentially an arrangement to keep the ghosts and spirits pacified; for it is clear to them from the tested experience of past ages that to break any of these rules is to challenge those who have power to do them great harm.

In whatever is said here, it should be understood that I have tried to eliminate from the Nāyar beliefs those elements which are indubitably Hindu. As I have pointed out at the start, there are a good many devout Hindus among the Nāyars, but it is an interesting fact that the practices and beliefs above described are prevalent among them also. The more one looks into these matters, the more one becomes clear that in the unorganised and uneducated human mind, be it "civilised" or be it primitive, there is a horizontal stratification of the most contradictory ideas, which lie absolutely undisturbed in the ordinary course of life. In the mind of the ordinary man whose *forte* is not clear thinking, a great deal of intermingling of such ideas might take place. It is no uncommon sight to see a thoroughly Hindu-ised Nāyar who talks about Absolutism and Illusion, and believes in them, paying a Kaniyan to get the devil out of his little niece. This is perhaps the truth which lies midway between those who assert, like Dr. Frazer, that magic and religion are hostile and cannot be reconciled, and those who, like Dr. Marrett, hold that in their origin they are the same, that it is in their character, as looked upon by society, they differ. The view I have maintained here is that religion and magic are different in their psychological and emotional effects, and that Dr. Frazer is right when he says that they are at bottom hostile. But the almost universal co-existence of magic and religion is due to the attitude of society, which tolerates all contradictions, and insists only on their effect being for social welfare. K. M. PANIKKAR.

REVIEWS.

Australia: Religion.

James.

Primitive Ritual and Belief: an Anthropological Essay. By E. O. James, B.Litt., F.C.S. With an Introduction by R. R. Marett, M.A., D.Sc. London: Methuen & Co., Ltd. 1917.

63

The chief motive of this little book is in essence apologetic; nor is the author's prefatory *tu quoque* excuse convincing. In many respects, however, it is an acute and excellent account and analysis of the religion of the Australian race, which is its subject. The distinction of rites into public and private is useful; but it may be doubted whether the wholesale initiation rites of the Blackfellows are strictly to be classed among the private rites. In any case it is easy to press the distinction too far. Naturally Mr. James advocates the late Andrew Lang's theory of the "High Gods of low races," and labours his proofs that the All-fathers of the Australian tribes were gods. I am inclined to agree with him that the central tribes had such a figure more or less in the background of their minds. Indeed, it seems to me likely that Mr. N. W. Thomas is right, that it can hardly be definitely asserted that there is or was any tribe without one. Whether such a figure should be called a god is to some extent a question of terminology. To speak of him as a self-created being, as immortal or eternal, is to introduce ideas which are not in

the native mind. It is the blunder of Ridley and Manning. Wherever we know any details concerning him he has a past on earth of adventure and magic and a more or less otiose present. Nor can it be suggested that he cannot be developed from animism, or rather from that vaguer, more germinal state of mind which Dr. Marett has called pre-animism. In short, we seem to me to have arrested the Australian mind on the way to the evolution of a god not actually attained. Among the Bantu referred to by Nassau, and quoted by Mr. James, the idea of a being known variously as Egbo, Ukuku, and Yasi does not appear to be held, apart from the consciously fraudulent terrors circulated by the secret societies. Puluga, of the Andamanese, is, according to Sir Richard Temple, "fundamentally with some definiteness" identifiable with the storm, mixed up with ancestral chiefs" (*Census of India*, 1901, iii, 63). And it is at least an open question whether the otiose "Supreme Being" of other peoples is not really an inchoate god, who might with favouring circumstances develop some time or other into a full-blown deity, rather than a god grown dim and overlaid by other interests.

In conclusion, the author admits that "the theory of a primitive revelation may be laid aside at once as untenable, and religion, like civilisation, regarded as a product of evolution, or as a search after the Unknown and the Infinite." Whether, as he further says, "a study of primitive ritual and belief reveals, among other things, a permanent element of truth—a progressive revelation," depends upon the reader's bias. The affirmative or negative would be equally difficult to prove; but the onus is on the former.

It is to be regretted that the printer's proofs have been corrected somewhat hastily; but the greater one's experience of the drudgery of correction, the greater will be one's sympathy with the author.

E. SIDNEY HARTLAND.

India: History.

Aiyangar.

A Little-known Chapter of Vijayanagar History. By S. Krishna Swamy
Aiyangar. Madras. 1916.

64

This work deals with the history of the great Hindu kingdom of Vijayanagar, which played a considerable part in the events of the fifteenth and sixteenth century. Outside the pages of archaeological reports, almost the only work on the subject available to English readers has been *A Forgotten Empire*, by Mr. Sewell, in which is embodied a translation of the Portuguese Chronicle of Nuniz, one of the principal sources of information on this subject. Mr. Krishna Swamy Aiyangar has here brought together from inscriptions and other sources a large body of facts which add considerably to the existing stock of information. These bear mainly on the series of revolutions which established the Saluva family in power. The first of these kings and two of his successors bore the name of Narasinha, which was taken by the Portuguese and other Europeans to be the name of the kingdom rather than of its sovereign. Hence we read of the country of Narsinga, of which the capital was Bisnaga (Vijayanagar). This is a careful and useful piece of research.

M. LONGWORTH DAMES.

Australia: Church Missions.

White.

Round About the Torres Straits: A Record of Australian Church Missions.
By Right Reverend Gilbert White, M.A., D.D., Bishop of Willochra. Society
for Promoting Christian Knowledge. London: 1917. 2s. net.

65

This little book is a sketch of the work of the Australian Church Missions in Australia and British New Guinea, is solely of missionary interest, and is written

from a very Anglican point of view. There is nothing of special interest to Ethnologists in it, except some extracts from other writers, more especially from the really excellent book, *In Far New Guinea* (1914), by the Rev. H. Newton, now Bishop of Carpentaria. The frontispiece, entitled "A New Guinea Village," looks very suspiciously like a scene in Torres Straits. The title of the book is somewhat misleading, as the "round about" extends from North-west Australia to the north coast of British New Guinea.

A. C. HADDON.

Wales: Geology, Geography, &c.

Whitehouse.

Descriptive Handbook to the Relief Model of Wales. By Wallace E. Whitehouse, L.C.P. With an Introduction by H. J. Fleure, D.Sc. Post 4to. 66 61 pp. Seven Plates and Map. Published by the National Museum of Wales, at Cardiff. 6d.

"As soon as the National Museum of Wales became more than a paper institution it was felt that one of the first specimens which ought to be procured was a map of the country on a large scale, modelled in actual relief, so as to show not only the coastline but the mountains, valleys, and rivers." So begins the preface by Mr. W. E. Hoyle, Director of the Museum. The handbook gives full details of the manufacture of the model, with illustrations, and explains the geological and many other features of the country, and shows how the model or any section of it may be used for teaching and for illustrating a variety of subjects. The sixty-five sections are each 18 inches by 12 inches in size, and the scale 1 inch to the mile horizontal, 2.64 inches vertical.

A. L. L.

ANTHROPOLOGICAL NOTE.

ACCESSIONS TO THE LIBRARY OF THE ROYAL ANTHROPOLOGICAL INSTITUTE.

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(Donor indicated in parentheses.)

An Elementary Môle Grammar. With a Vocabulary of over 1,000 words. By R. S. Ratray, M.B.E. $6\frac{3}{4} \times 4\frac{1}{2}$. 85 pp. Clarendon Press. 5s. net. (The Publishers.)

Tāngkhul Nāga Grammar and Dictionary (Ukhrul Dialect); with Illustrative Sentences. By Rev. W. Pettigrew. $10 \times 6\frac{1}{2}$. 476 pp. Assam Secretariat Printing Office. 4s. 6d. (The Superintendent Government Printing.)

Die Steinzeitlichen Stationen des Birstales Zuris'chen Basel und Delsberg. By Fritz Sarasin. $12 \times 9\frac{1}{2}$. 210 pp. 32 Plates and 20 Figures in the Text. Kommissions-Verlag von Georg & Co., Basel. (The Author.)

The American-Indian. By Clark Wissler. $9\frac{1}{4} \times 6\frac{1}{4}$. 435 pp. 104 Illustrations and Maps. Douglas C. McMurtrie, New York. \$3.15. (The Publishers.)

A Dictionary of the Maori Language. By H. W. Williams, M.A. $8\frac{3}{4} \times 5\frac{1}{2}$. 590 pp. Marcus F. Marks, Wellington, N.Z. 1l. (Purchased.)

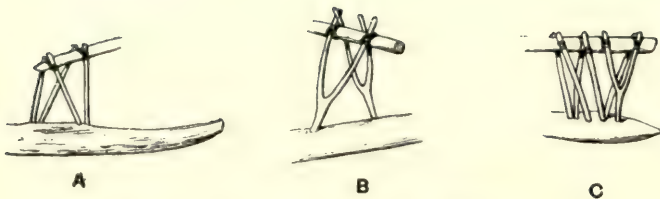


FIG. 1.—TORRES STRAITS ATTACHMENTS:
A—TYPICAL; B, C—VARIATIONS SEEN AT MABUIAG.
(AFTER PHOTOGRAPHS.)

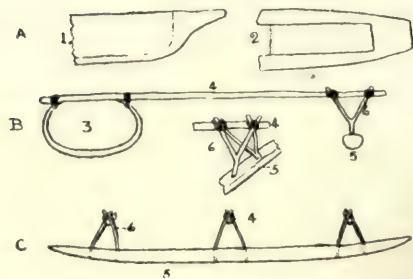


FIG. 2.—COASTING CANOE, NEW CALEDONIA.
(DRAWN BY T. MONTAGUE.)

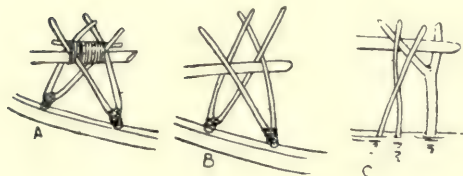


FIG. 3.—ATTACHMENT OF CANOES:
A, B—MARE, LOYALTY ISLANDS;
C—NEW CALEDONIA.
(AFTER PHOTOGRAPHS BY F. SARASIN.)

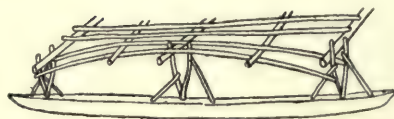


FIG. 4.—ATTACHMENT OF A SIKAIANA
CANOE.
(AFTER THILENIUS.)

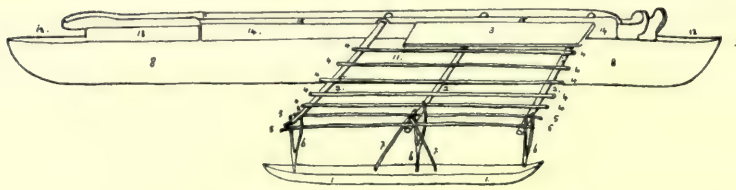


FIG. 5.—SIKAIANA CANOE.
(FROM WOODFORD.)

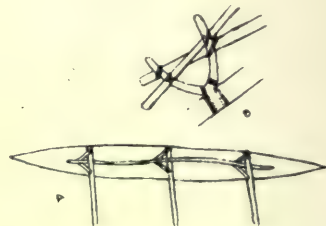


FIG. 6.—LIUENIUA CANOE AND
ATTACHMENT:
A—OUTRIGGER VIEWED FROM ABOVE;
B—ATTACHMENT, SLIGHTLY SIMPLIFIED.
(AFTER FRIEDERICI.)

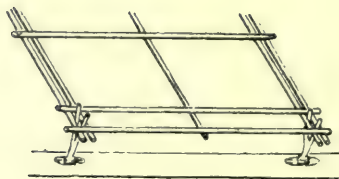


FIG. 7.—ATTACHMENT OF A CANOE
FROM THE MARSHALL ISLANDS (?).
(HORNIMAN MUSEUM.)

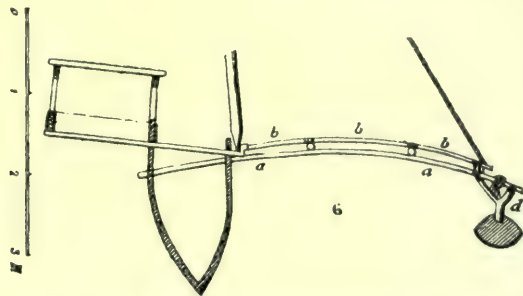
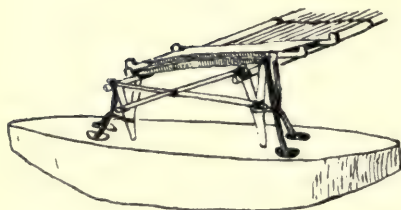
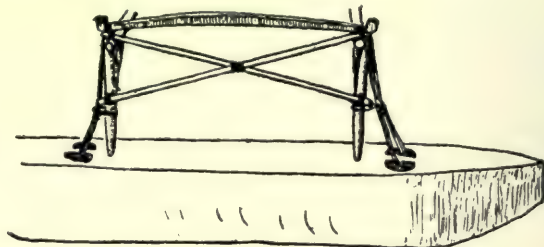


FIG. 8.—SECTION OF A SAILING CANOE AND ITS
OUTRIGGER, CENTRAL CAROLINES.
(FROM KUBARY.)



A



B

FIG. 9.—ATTACHMENT OF A MODEL CANOE FROM THE PELEW ISLANDS.
A—PERSPECTIVE VIEW; B—END VIEW. PITT RIVERS MUSEUM, OXFORD. (SKETCHED BY H. BALFOUR.)

ORIGINAL ARTICLES.

Melanesia: Canoes.

With Plate H.

Haddon.

An Anomalous Form of Outrigger Attachment in Torres Straits, and its Distribution. By A. C. Haddon.**68**

The typical method of connecting the float to the outrigger booms of the originally double outrigger canoe in Torres Straits is by means of two pairs of sticks, the sticks of each pair being parallel or converging over the boom (but not necessarily crossing over it) and diverging from the other pair (Plate H, Fig. 1 A). Anthony Wilkin photographed two canoes at Mabuiag in 1898, which had the attachments shown in Fig. 1 B, C; in the B a pair of Y-shaped sticks replace the four simple sticks of the normal type, C is a composite method, being based mainly on a somewhat simplified type of attachment characteristic of the estuary of the Fly (*cf.* Haddon, 1913, Fig. 3), but the Y-shaped stick has also intruded. I regret, not being then aware of the importance of the method of attachment, that I did not inquire into the matter, and when I wrote my article on "The Outrigger Canoes of Torres Straits and North Queensland" in the *Essays and Studies Presented to William Ridgway* (Cambridge, 1913, p. 609), I could not make any definite statement concerning this anomaly.

In an account of his expedition to New Caledonia, R. H. Compton gives a brief account of the canoes of that island in which he says, "The far ends of the booms " were attached to the float by means of pairs of Y-shaped sticks; this arrangement " being closely similar to that observed in the canoes of the Torres Straits" (*Geog. Journ.* XLIX, 1917, p. 100, and Fig. 6). He overlooked, however, the fact that I had pointed out that this was an anomalous arrangement in that area. Before he accompanied Mr. Compton on his expedition I asked my friend, Paul Montague, to make certain ethnographical investigations, particularly in regard to canoes, and on his return he confided his notes to me, which will be published in due course;* in the meantime I reproduce one of his drawings of the simplest form of outrigger canoe (Fig. 2). He says this type, which consists of a simple dug-out with three booms, is used for coasting purposes; the smaller, but otherwise identical, river canoes having only two booms; he adds that the canoes of the New Caledonians show a remarkable uniformity in all essentials in every locality visited. He also gave me the following terminology:—

	Hull.	Booms.	Attachments.	Float.
Houailu (middle of E. Coast)-	<i>kouiu</i> or <i>kwā</i>	<i>kiaro</i>	<i>mu</i>	<i>douiou</i> (<i>dwiū</i>)
Ouebia, Bondé Balade, Pouébo (N.E. district).	<i>wangwe</i> (also <i>kalaba</i> at Pouébo).	<i>poulame</i>	—	<i>adiāi</i>

G. Friederici (1912, pp. 245, 246)† quotes from the *Vocabulaire Mariste* the words *kouan* (*kuan*) *korbā* (*korpa*) for the outrigger canoe of Nékété [Nakéty] and Thyo [Thioo] on the east coast of New Caledonia opposite to Maré, *kouiu* or *kwa* are variants, and there are several analogous words which Friederici equates with the *guban* of the Sulu Archipelago; in north New Ireland the form is *kuwa*, *kovo*.

Wangwe is a form of the widely spread *wangka* and its variants, which is the *hākā* of Ambon (Amboina).

Kalaba may be a form of *alal*, *tala*, *talalo*, &c., of Ambon and the Uliassers; *ālā*, Dallmann Harbour district, New Guinea; *vālā*, Muschu I., which Friederici

* Since these lines were penned I have heard, with great sorrow, that my young friend, Montague, has been killed in action.

† The references to Friederici are to *Mitt. aus den Deutschen Schutzgebieten*, Ergänzungsheft Nr. 5: "Beiträge zur Völker- und Sprachenkunde von Deutsch-Neuguinea," Berlin, 1912; and *ibid* Nr. 7, "Untersuchungen über eine Melanesische Wanderstrasse," 1913.

thinks may also be allied to *yēl* of Weeda in Halmahera, which passes into the Melanesia as *kēl* or *gēl*, or as *kelakela* in Anudha, Solomons.

Kiario is evidently a form of the word *kiato* or *iato*, which is the very widely spread name for outrigger booms in Indonesia and Oceania.

The nearest analogue for *poulame* that I can find is *uramon*, the Banda term for the booms.

Duin is probably allied to *ouanghé* (*uanhe*), the term for the float in the Nékété-Thyo language, which Friederici seems to suggest is a form of *kuan* [see above] and also *kūbāk*, the name for the float in the Marshall Islands; if this be the case this name for the float in New Caledonia and the Marshall Islands is a variant of the term for a canoe [cf. MAN, 1918, 29]. It is worth while recalling that a Y-shaped attachment occurs also in the Marshall Islands (Fig. 7).

I cannot trace the word *adiāi*.

Fritz Sarasin, in his recently-published book, *Neu-Caledonien und die Loyalty-Inseln* (Basel, 1917), gives an illustration (Fig. 124) of a fishing canoe at Touaouru (S.E. coast), which is a simple dug-out with two booms, one of which has the double Y-attachment, and the other a single Y-stick on one side of the boom and two oblique sticks on the other (Plate H, Fig. 3, c). He also figures two canoes from Maré, Loyalty Islands, one at Pénélo (on the E. coast) and the other at Eni (S.W. coast); both are allied to Montague's third New Caledonian type with three booms, "sea-going" canoes with a high wash-strake and platform deck," but in these the platform is lacking; the attachments are of the New Caledonian type, though the stem of Y is very short, reducing it practically to a V (Plate H, Fig. 3, A, F.) S. H. Ray, in his memoir on Lifu, Loyalty Islands (*Journ. Roy. Anthr. Inst.*, XLVII, 1918, p. 25), gives the words *he* for canoe and *hnapan* for float, and refers to the statement by Rochas that the Lifuan canoes were the same as those in New Caledonia.

In the Bankfield Museum, Halifax, there is a model of a canoe from the Loyalty Islands with the two booms, high wash-strake, and a platform; each attachment, however, consists of a single pair of parallel vertical sticks; for the present it must be left an open question whether this represents an actual method of attachment.

The New Caledonian and Loyalty Islands' attachment undoubtedly consists typically of a pair of Y-shaped sticks, the forks of which converge over and beyond the boom—precisely as in one example at Mabuiag in Torres Straits. The explanation of the latter is now perfectly clear. It was made by a Loyalty Island resident in Mabuiag. S. McFarlane, in his book, *Among the Cannibals of New Guinea* (1888), describes how he founded the Mission in Torres Straits in 1871 "with a few Lifu teachers in our boat" (p. 26), and "thus our Lifu and Maré converts became the pioneers of the New Guinea Mission" (p. 9); other Loyalty Islanders followed in their wake. I knew several of them in Mabuiag in 1888, and some still remained in 1898. I have collected several wooden clubs typical of the Loyalty Islands in Mabuiag and other islands of Torres Straits (cf. *Rep. Camb., Anthr. Exped. to Torres Straits*, IV, Cambridge, 1912, p. 195).

The Y-attachment has a yet wider range. G. Thilenius first recorded it from Sikaiana (Stewart Island, east of Malaita in the Solomons). He gives an excellent illustration (Pl. III, Fig. 1) of a canoe, *vaka*, with a single outrigger composed of three booms, *kiato*, each of which is supported by a Y-stick, *fakato* or *hakatu*, which is inserted below into the float, *ama*. The forks of the front stick are on the fore side of the fore boom, and those of the hind stick on the aft side of the aft boom, whereas the central boom projects between the forks of the central stick. There are two accessory simple oblique sticks, *tongi*, to each *hakatu*. There is an outer and an inner longitudinal spar, *palo*, which are so bent that they pass over

the central boom and under the outer booms (Fig. 4). (Ethnogr. Ergebnisse aus Melanesien. *Nova Acta Abhandl. Kais. Leop.-Carol. Deutsch. Akad. der Naturf.*, LXXX, Nr. 1, Halle, 1902.) His account is confirmed by Friederici.

C. M. Woodford has published a figure of a canoe, *te waka* (Fig. 5), which has a single outrigger with three booms, *te giato*, each of which is attached to the float, *te ama*, by a single forked stick, *hagatu*, the central one having in addition two oblique sticks, *te tugi*, which cross over the boom. There is also an outer and an inner longitudinal spar, *te halo*, the aft ends of which pass below the aft boom, as also the fore end of the inner *halo* appears to do, but the fore end of the outer *halo* passes above the fore boom. This may be an error in drawing. (MAN, 1912, 99.)

In a northerly direction lies the island of Liueniua (Luaniua, Lord Howe, or Ongtong Java), where, according to Friederici, the canoes have three or four (in one case five) booms, each attached to the float by a Y-stick, the stem of which is inserted in the float, so that it looks like a V- or U-attachment (Fig. 6). He states that it most decidedly recalls the Moluccan-Barriai-Nakani attachment. There is a longitudinal spar between the forks, which passes over the central boom and under the outside ones (1912, p. 299, pp. 100, 101*b*).

Friederici gives the following terms for Sikaiana and Liueniua: Canoe, *vakā*, S., *vā*, L.; boom, *hiātō*, S., *yēko*, L.; attachment, *hāgāto*, S., *haku*, L.; float, *āmā*, S., L. (*l.c.*, p. 302).

Friederici (p. 301) points out that Nuguria, Tauu, and Nukumanu, the three northerly islands of the group, use simple attachment-sticks, while the two southerly ones, as we have seen, employ the Y-stick. Thilenius (pp. 70, 71) states that these "Polynesian islands on the eastern border of Melanesia" have had colonists or visitors from Polynesia, Micronesia, and Melanesia. People from Tonga, Rotuma, Gilbert Islands, Buka or Bougainville, etc., have come to Liueniua, and from Tonga, Samoa, San Cristoval, etc., to Sikaiana (*see also* his map, Pl. V). It is therefore worthy of note that there is so little variation in the form of the canoe and its outrigger.

This attachment is also characteristic of parts of Micronesia, but others occur there as well.

A. Krämer (*Hawaii, Ostmikronesia, und Samoa*, Stuttgart, 1906, pp. 356-360) gives an excellent account of the craft of the Gilbert Islands. The small fishing raft, *te ebeeb*, is composed of a platform supported by Y-sticks on two floats, consisting of piles of beams. He says this raft is exactly like the outrigger canoe, except that instead of the canoe there is another float. There is a small outrigger canoe, *toā* or *te vā*, for paddling. The sailing canoe, *toaririk* or *te doa* (the largest kind is called *bauru*) has three booms, *giaro*, connected with the float, *te rama*, by forked supports, *te dodo*. To the west is the island of Nauru (or Nawodo, 0° 25' S., 167° 5' E.), where, according to Krämer, the canoes show more affinity with those of the Gilberts, though Melanesian influence is undeniable. He does not describe this type, but, judging from the somewhat indistinct photograph (Bild 73, p. 454), the booms and their attachment are precisely similar to those of my Fig. 7. The artist who drew Fig. 45 (p. 454) has evidently made a mistake, as he figures three, instead of five, booms; the fore Y-attachment is aft of the fore boom, while the aft attachment passes through the aft boom, the artist evidently having mistaken the two booms, which are close together, for the top and side of a single boom. The lashing of the Y-stick encircles the long float.

A canoe in the Horniman Museum, Forest Hill, London, may be allocated to the Marshall Islands, as its bow and stern correspond exactly with an illustration of the end of a canoe-model from the "Marshall-Ins." given by W. Müller-Wismar

(*Baessler-Archiv*, II, 1912, Fig. 36, p. 242). The outrigger (Fig. 7) is single, and consists of five booms, the two fore ones of which are very close together, and are supported by a single **Y**-stick, as are the two aft booms; the central boom is not connected with the float. There is an outer and an inner longitudinal spar. The base of each **Y**-stick is slightly expanded, and fits into a depression in the very long float; unfortunately the lashing has not been preserved. As previously stated, the outrigger precisely resembles the Nauru type, but the canoe itself does not agree with Krämer's figures. Krämer, however, does not refer to this type of attachment in the Marshall Islands, but describes a complex outrigger with two central booms, each with one or two pairs of vertical sticks, combined with numerous flanking booms with direct attachments. An analogous, but detachable, outrigger with combined indirect and direct attachments occurs in the Santa Cruz group.

J. S. Kubary, in his beautiful and detailed monograph (*Ethnogr. Beitr. z. Kenntnisse des Karolinen Archipels*, Leiden, 1895), does not refer to the **Y**-attachment in the Marshall group. He figures (Pl. LIV, 6) a sailing canoe from the central Carolines, the outrigger of which consists of two booms, *kio*, each supported by a **Y**-stick, *cām*, the stem of which is entirely inserted into the float, *tam* (Fig. 8). [It is interesting to note that in the Polynesian Nukuor, 155 E. Long., south of the Mortlock group, the attachment consists of simple sticks, much as in other Polynesian islands.] The outrigger of a model of a canoe in the Leiden Museum, from the Caroline islands, has two booms each supported by two **Y**-sticks. In the figure given by Kubary (Pl. LIV, 5) of a Ponape attachment, there are three booms, *kiai*, the outer ones of which are supported by two attachment sticks, *rak*, which may be the branches of a **Y**-stick, but this is not clear; there is an additional bent spar, *apic*, which connects the float, *tām*, with the side of the hull, *nanwar*, though it is not inserted into the latter. The small sailing canoe, *kaép*, of the Pelew (Pelau) group, as described and figured by Kubary, has two booms, *soâes*, each supported by a **Y**-stick, *ulay*, the main stem of which is vertical, the branch coming out at angle from it (as in Fig. 7), the outer surfaces of the *ulay* are braced by two crossed spars, *turâr*; there is also a short curved longitudinal spar, *kametâl*, which is also made fast to the float, *dosómel*, by a lashing, *tul a kametâl* (Pls. LIII, 6, 7). This arrangement is precisely similar to that in a model of a canoe from the same group in the Pitt Rivers Museum, Oxford (Fig. 9).

It may be noted that intercourse has been recorded by Thilenius (*l.c.*) between Liueniua and the Gilberts on the one hand and with Tonga on the other, and also between Sikaiana and Tonga; at all events, this is a part of the line of distribution of the attachment in question. Judging from indistinct photographs, I suspect that Reef Island, Santa Cruz group, also forms a link in the chain to New Caledonia.

Friederici (1912, pp. 238-9), gives the following terms from Indonesia:—

	Canoe.	Booms.	Attachment.	Float.
Banda - - -	<i>prau</i> (<i>prahu</i>)	<i>ūramōn</i> <i>ōramūn</i>	<i>ūngēru</i>	<i>semān</i>
Ambon - - -	<i>hākā</i> <i>prau</i>	<i>nadyūn</i> <i>nādyu-nādyu</i>	<i>pāgupāgu</i>	<i>semān</i>
Batjan - - -	<i>nyōn</i>	<i>bairūnān</i>	<i>tudātudā</i>	<i>somān</i>
Ternate - - -	<i>oti</i>	<i>nādyu-nādyu</i>	<i>pagu</i>	<i>samā</i>

It should be remembered that in all the above Indonesian instances the **U**-Moluccan attachment is associated with a double outrigger, whereas all the canoes I am referring to in the Pacific have but a single outrigger.

It is possible that the **Y**-form is a modification of a single stick attachment, but I am inclined to regard it as a variety of the **U**-shaped Moluccan attachment (Fig. 10A). This extends from the south-east islands of the Kei group (model in

the Amsterdam Museum) to the Sulu Archipelago, from which group Baessler figures a model of a sailing boat with a double outrigger: this latter is really a two-boom type, but each boom has another one vertically above it, from which it is separated by a small space; each U-attachment is fastened to both of these booms



A



B



C

FIG. 10.—MOLUCCAN ATTACHMENTS: A, BATJAN; B, AMBON; C, BANDA. A AND C AFTER PHOTOGRAPHS BY GUILLEMARD (NOS. 334, 161); B AFTER FRIEDERICI.

(*Int. Arch. f. Ethnogr.* IV, 1891, p. 66, Pl. VIII, Fig. 4).

The single U-attachment occurs also at Wetar or Wetta, north of Timor (Riedel, *De Sluik-en Kroesharige Rassen*, 1886, Pls. XLI, Fig. 12, XLIII, Fig. 8, where the canoe is called *bero*). Friederici (1912, pp. 235-44) has sufficiently recorded its distribution in the Moluccas: he says: "This Moluccan attachment occurs as the predominant or exclusive form

"of attachment on Banda, Ambom, and the Uliassers; on Ceram, with the exception of a few places on the north coast, and sporadically on Buru. I have shown in "Part II that it was also sporadically diffused through the Northern Moluccas" (1913, p. 161).

The double V or Y-shaped sticks of the Loyalty islands and New Caledonia certainly strongly resemble the double U-Moluccan attachment, which Friederici first described among the Barriai, Kobe, and Kilenge folk on the north coast of the western end of New Britain (but less so among the Kilenge of the extreme west, who are strongly influenced by the stick attachment of New Guinea), at Witu (French islands, north of New Britain), and among the Nakanai of the north coast of New Britain close to the Gazelle peninsula (Fig. 11, A, B) (1912, pp. 244, 269). I have pointed out (1913, p. 622) that this attachment (Fig. 11 c) was figured, but not described, by Verguet in the small *étea* canoe of San Cristoval in the Solomons (*Rev. d'Ethnogr.*, IV., 1885, p. 193). Friederici has also noticed this (1913, p. 161), where he says that the Moluccan attachment is characteristic of his Alfuran migration, to which I shall allude later. He only knows it in addition from "Sikayana" and "Luaniua." It is interesting to find that the crossed double U-attachment also occurred in Tonga (Fig. 11 D), where it is now obsolete. Basil Thomson (*The Diversions of a Prime Minister*, 1894, p. 343) gives a sketch of a *tafaanga* in the surf. He also presented a model of the old Tongan canoe to the Cambridge Museum of Archaeology and Ethnology, and informs me that it was made partly by

and partly under the personal supervision of the late King George of Tonga, who in his youth was a noted canoe maker. The *tafaanga*, as it was called,

was displaced early last century by the Fijian *ndrua*. It will be observed that in the San Cristoval example, Thomson's figure of the Tongan canoe (which in this respect is erroneous), and the type in the Loyalty islands and New Caledonia the bars of the

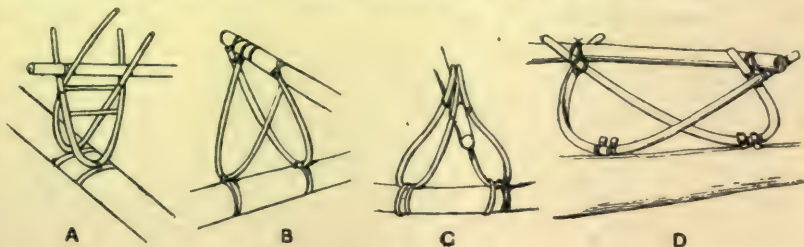


FIG. 11.—DOUBLE U-MOLUCCAN ATTACHMENTS, A, NAKANAI, AFTER FRIEDERICI (1912, p. 269); B, KÁLOGA, FRENCH ISLANDS, AFTER E. STEPHAN; SÜDSEEKUNST, BERLIN (1907, FIG. 102); C, SAN CRISTOVAL, AFTER VERGUET; D, TONGA, MODEL IN CAMBRIDGE MUSEUM.

attachments cross over the booms, whereas in the French islands, New Britain, and the model of the Tongan type (which is certainly correct) they cross under and thus support the boom.

According to Friederici (1913, pp. 1, 11-15, 18, 19) the Alfurs were the ancient inhabitants of Ceram and the adjacent islands, whose descendants still occupy the interior of these islands, the coastal peoples belonging to later settlements. These Alfurs, or an allied people, sent off migrations round New Guinea into the Pacific. One branch would reach the north coast of Rook island and the land of the Kilenge, Barriai, Kobe and Nakanai on the north coast of New Britain, and according to his map reached the north-west coast of New Ireland. A second branch which sailed near Rook Island through Dampier Strait, struck the Siassi islands and the south coast of west New Britain, and may have reached the southern Solomons and the New Hebrides by way of the Trobriands and Murua; but he cannot prove this. A third branch passing through Vitiez Strait left a colony among the Papuans of the Jabim district and occupied Tami islands,* then came down the coast of New Guinea to the Massim district, or more particularly the d'Entrecasteaux islands and adjacent mainland. In the Massim district perhaps they found an old stratum of Melanesians or Melanesianised Papuans, so they passed on round South Cape, and finally reached the area now occupied by the Western Papuo-Melanesians, as far as the Mekeo district; but a portion remained behind in the Massim district. His contention is that this branch is allied linguistically to the Barriai of the first branch, and he sees nothing in the physical or cultural traits examined by him which incontrovertibly contradicts this conclusion. This migration is also characterised by the words *wanagi*, *waona*, *wa*, *vaka*, etc., for an outrigger canoe. There are, however, reasons for supposing that the problem of the origin and affinities of the Western Papuo-Melanesians and their culture is not so simple as this theory implies. For example, the double canoe occurs in New Guinea only among the Western Papuo-Melanesians (who undoubtedly introduced it to certain tribes of the Papuan Gulf), but it does not seem to belong to any of Friederici's Alfuran migrations, as it is absent from northern and central Melanesia, though characteristic of Polynesia; but it may have become obsolete in Melanesia. A characteristic attachment among Western Papuo-Melanesians, from Tupuselei to the Hood Bay district,† consists of two vertical sticks which clamp the forked ends of the booms, precisely as in the south New Ireland, Gazelle Peninsula (New Britain), and Duke of York Island; but according to Friederici's map these latter localities were not colonised by an Alfuran migration. I hope to recur to this problem on another occasion. Neither the double U-Moluccan attachment nor the Y-stick reached British New Guinea, unless they have been entirely replaced by other types of attachment. The languages of the Alfuran migrations are characterised by the pre-position of the genitive.

Friederici also recognises another line of migration, consisting of several detachments, his Philippine or sub-Philippine, which, starting from Palawan, passed through the Sulu archipelago; north of Halmahera it met another affluent coming from the north-east point of Celebes, thence the stream of migration flowed not far from the coast of New Guinea (which was colonised at some points between Humboldt Bay and Dallmann Harbour and in the vicinity of Astrolabe Bay), reached New Hanover, and New Ireland, and passed down to the New Hebrides (1913, p. 37). He regards the term *guban*, originally for a double outrigger canoe (which apparently had a direct

* The ethnology of the Tami islands has been complicated by a relatively recent cultural drift from the western end of New Britain.

† Forked booms with a different stick attachment extend to Aroma.

attachment), as characteristic of this migration, as is also the post-position of the genitive.

I must confess that I do not quite understand the position adopted by Friederici. He allocates the double **U**-Moluccan attachment solely to his Alfuran migration (though the double form does not occur in Indonesia), and by implication limits it to his first two branches (it occurs among the Barriai group of the first branch) though in the second he knew of it only in San Cristoval, but this attachment also crops up in Tonga. If the double **V** or **Y**-stick attachment is a variant, then this Alfuran migration may have reached New Caledonia, bringing with it the word *wangwe* for a canoe.

The single **Y**-stick attachment occurs, as we have seen, in Sikaiana and Liuenia. Friederici formerly suggested that these islands may have been influenced from San Cristoval (1913, p. 161), but subsequently in a letter he abandoned this view. He does not, however, allude to the widely-spread distribution of this attachment in Micronesia, the whole of which lies within the area of his Philippine migration. Possibly Friederici may not now admit a connection between the **Y**-stick and the **V**-Moluccan attachment, as the **Y**-stick (single or double) is not recorded for the Philippine area, but, as I have just pointed out, Baessler figures the **U**-attachment from the Sulu archipelago, which is outside of the Moluccan-Alfuran area. If the New Caledonian attachment is simply a duplication of the single **Y**-stick, then we have an interrupted line from Micronesia to New Caledonia which cuts across the distribution of the double **U**-attachment.

If Friederici is correct in equating *uanhe* (and ? *douoiu*) with *kuan* (to which *kouiu* seems allied) then the Sulu term *guban* for a canoe reached New Caledonia; but this is a criterion of his Philippine migration. As we have seen, he regards *kubak*, the word for a float in the Marshall Islands, as a variant of *guban*. As the **U**-attachment occurs in the Sulu Islands and the **Y**-stick in the Marshall, we may infer that this attachment was also brought into the Pacific by the Philippine migration. As there is only one kind of attachment in New Caledonia it is possible that the "Alfuran" double **U**-attachment and the "Philippine" single **Y**-stick met in New Caledonia, and that under the influence of the former the latter became doubled.

My main object in compiling these notes is to emphasise how suggestive such an apparently insignificant feature as an outrigger attachment may be in the elucidation of the problems of distribution.

A. C. HADDON.

Malta: Landmarks.

Fenton.

The Maltese Cart Ruts. *By Captain E. G. Fenton, R.A.M.C.*

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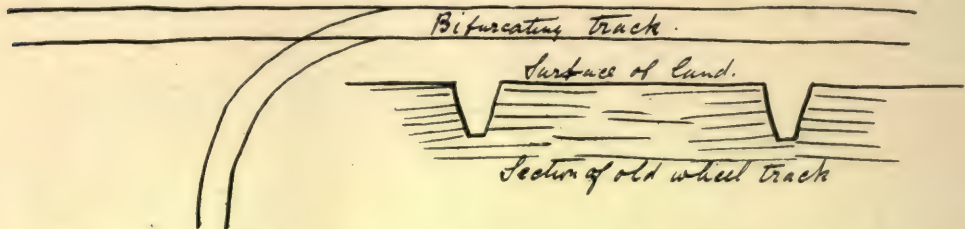
Professor Boyd Dawkins referring in MAN, 1918, 52, to my paper on "The Maltese Cart Ruts" (MAN, 1918, 40), stated that without doubt they are not artificial, but are due to weathering of the rock under natural conditions, that they are merely ordinary joints widened by rain water, and that they have no archaeological significance. These are strong and sweeping statements to make with regard to a subject which has already been dealt with by several writers who have studied the subject first hand.

During 1916 I had the opportunity of visiting Malta on several occasions, and I took up the study of these cart tracks as a hobby in my leisure time. As a result of many days' careful observation I may say that I, at least, am satisfied that these "ruts" are really old wheel tracks cut in the rocks of Malta, and that they are not joints opened by water action.

I am sure that if Professor Boyd Dawkins had ever seen these old roads he would not have made the statements mentioned above. According to him the "ruts"

should run in two principal directions, one slightly to the east of north, and the other slightly to the south of east. Now, I can assure him that they sometimes run straight, but much more often curve in every direction possible. I have seen them come to the top of a rather steep hill, and instead of going straight down, they took a sharp bend and made a long zig-zag so as to choose an easy gradient of descent. He says the photograph shows a second set of joints cutting the original more or less at right angles; but I can inform him that what he imagines to be a joint in Fig. 1 is a modern road which has been cut across the old track, but as it is somewhat sunk it does not appear. Again, I would like to ask him why do these "joints" always run in parallel pairs, bending in every possible direction, cutting the stone at every imaginable angle to its natural fissures, and always maintaining the same exact distance from rut to rut? And why was I never able to find a single rut?

The accompanying lines traced will show how two independent tracks often are found to meet and proceed afterwards as one:—



I have often noticed bifurcations of the above type, and I have also found in more than one place a modern cutting exposing a cross section of an old track. In these latter instances it appeared something like the above rough drawing. The ruts were found to be cut in a clean homogeneous rock, used locally as an excellent building stone, and no fissures extended down from the floors of the ruts, but the stone under them was absolutely unbroken.

To my humble mind the evidence is absolutely conclusive that these are old wheel tracks, dating probably from some former period of civilization, possibly Roman. As I am at present in France I regret I am unable to look up the authors who have already touched on this subject, but I remember hearing of one who mentioned them in a work written over a hundred years ago, and he described them then as remarkable antiquities.

Since writing my reply to the criticism of Professor Boyd Dawkins of my paper on the Maltese Cart Ruts (above) I have received from a friend a letter mentioning a reference to them in a work published in 1773, with a new edition in 1775. The title is *A Journey Through Sicily and Malta*, and it consists of a series of letters written by P. Brydone, F.R.S., to William Beckford. In one of these, written in Malta on June 5th, 1770, Brydone says: "It is very singular that " on this side there are still vestiges of several ancient roads with the tracks of " carriages worn deep in the rocks. These roads are now terminated by the precipice, " with the sea beneath, and show to a demonstration that the island has in former " ages been of a much larger size than it is at present." I have been informed by several people that the tracks are found in places, both in Malta and Gozo, passing over the cliff, but I have myself never seen them do so. I have only, however, visited a comparatively small portion of Malta and I have never been to Gozo.

E. G. FENTON.

Central America : Chronology.

Long.

The Maya and Christian Eras. By Richard C. E. Long.

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The method by which the Mayas reckoned time from the zero point of their chronology is now well established, and may be found fully set out in the works of Mr. C. P. Bowditch (*The Numeration, Calendar System, and Astronomical Knowledge of the Mayas*, Cambridge, Mass, 1910) and Mr. S. G. Morley (*An Introduction to the Study of the Maya Hieroglyphs*, Washington, 1915). It is sufficient here to recall that the units of time used are the day or *kin*, the *uinal* of twenty days, the *tun* of eighteen *uinals*, the *katun* of twenty *tuns*, and the cycle of twenty *katuns*. In this paper the usual method of writing these periods will be used, by which, e.g., nine cycles, sixteen *katuns*, four *tuns*, eleven *uinals*, and eight *kims* are written 9-16-4-11-8. It will be assumed here that the higher units above the cycle follow the vigesimal scale, so that, e.g., 2-4-0-0-0 reads as two great cycles (each containing twenty cycles) and four cycles. Many different suggestions have been made to determine the date in the Christian era corresponding to the date 4 Ahau 8 Cumhu, the zero point of the Long Count.

Mr. Bowditch (*American Anthropologist*, N.S. III, No. 1, 1901) by calculating from the date 11th September 1536 reaches a result by which this latter date would in the Long Count (taking above value of the great cycle) be 13-2-13-3-1, 9 Imix 19 Zip. Mr. T. A. Joyce (*Mexican Archaeology*, London, 1914) does not go into the calculation from this date, but compares the Short Count dates of the Books of Chilan Balam with the Long Count, and reaches a result which would give exactly the same date. The important point is that these writers reach the same result by different methods. Neither of them had occasion to work out the exact days of the month and exact year in the Christian era corresponding to other Maya dates. Mr. Bowditch uses the "vague" year of 365 days instead of the Julian or Gregorian year to convert the Long Count dates to dates in the Christian era, and the dates given in the appendix to Mr. Joyce's book are also approximate. Assuming that 11th September 1536 was 13-2-13-3-1 in the Long Count, and also assuming, in accordance with the opinion of Mr. Bowditch and Mr. Morley, that the Mayas made no intercalation in their calendar, but used only a vague year of 365 days, which consequently shifted round by one whole vague year in 1461 years, I have calculated in annexed table the exact dates of each cycle date up to cycle 8 and of each *katun* date from that to *katun* 2 of cycle 14. No "historical" dates are found before cycle 8, so it is unnecessary to give each *katun* of earlier cycles.

The series has been brought up to date, as the books of Chilan Balam carry on the Short Count into the 18th century. The Julian calendar has been used throughout, as it was in use during the existence of the Maya reckoning, and is also more convenient for calculation.

Now the remarkable fact emerges that by such a calculation the date 9-9-16-0-0, 4 Ahau 8 Cumhu, fell upon 21 June, A.D. 100, that is, on the summer solstice, because in A.D. 100 the Julian calendar was at most not more than a day in error. Dr. Forstemann has shown the prominence of this date in the Dresden Codex, and that it seems to be the date which all the other dates in the Codex lead up to. The number 9-9-16-0-0 contains as factors most of the important numbers in the Maya calendar, and has the especially important property that after the lapse of this time the *tun*, the calendar round, and the Venus cycle of 104 years all coincide.

This throws some light on the nature of the date of the zero point of the Long Count, which also fell on a date 4 Ahau 8 Cumhu. Mr. Morley (*op. cit.*, p. 60) has shown good reasons for believing that this zero point was not a real historical

date from which the Mayas commenced reckoning, but rather a date chosen for the zero point of the era very long afterwards. It seems difficult to resist his conclusion, seeing that, with certain exceptions which can be otherwise explained, no objects are found dated in the first seven cycles, and the monuments only commence in cycle 9.

I suggest, then, that the mythical zero point, 4 Ahau 8 Cumhu, was obtained by calculating back from 9-9-16-0-0, 4 Ahau 8 Cumhu, which latter date fell some time after the calculation was made. The reason for counting back the distance number, 9-9-16-0-0, was owing to the remarkable properties of this number, and as to the reason for selecting the date, 9-9-16-0-0, 4 Ahau 8 Cumhu, to count back from, there are two suggestions possible:

(1) This date was one on which the summer solstice fell on the day Ahau, the most important of the twenty days of the *uinal*. If we take the tropical year to be $365\frac{1}{4}$ days, which for short periods is sufficiently accurate, it can be shown that the summer solstice would not again fall on Ahau till after nineteen years if the previous occurrence was in an ordinary year, or twenty-three years if it was in a leap year, so that the choice of days Ahau which are also days of the summer solstice is limited. Further, it would be natural to select such a day falling in the month Cumhu, the last month of the year, following the general Maya principle of reckoning from the ends of periods. If this last be granted it will be found that the choice of dates is practically limited to four, viz., 6 Ahau 3 Cumhu (nineteen years before 4 Ahau 8 Cumhu), the date 4 Ahau 8 Cumhu itself, 6 Ahau 13 Cumhu (twenty-three years after 4 Ahau 8 Cumhu, because A.D. 100 was a leap year), and 4 Ahau 18 Cumhu (nineteen years after 6 Ahau 13 Cumhu). Any earlier or later date would fall outside of the month Cumhu, and the solstice would not again fall in Cumhu for a very long period of time.

(2) The foregoing suggestion only presupposes that the Mayas, previous to making this calculation, only used their 365-day year and the calendar round of 52 years, and no additional fixed time period. But if we suppose that besides the year of 365 days they also used the year of 360 days, the *tun*, not merely as a counter but as a fixed period with its own recurring New Years Day, concurrently with the 365-day year, it will be found that the solstice would not again fall on a day Ahau which was also the last day of a *tun* for a very long period, and that neither its next nor its previous occurrence on Ahau would fall in Cumhu. It would not fall again on Ahau in Cumhu within a cycle either before or after. Therefore, on this supposition there is no choice of any other day within the limits of "historical" Maya dates.

It is clear that the choice of the date 9-9-16-0-0, 4 Ahau 8 Cumhu, to reckon back from must have been made while the date itself was still in the future, because there are many "historical" Maya dates much earlier in cycle 9, and probably the cycle 8 dates are also "historical." The objection will at once be made that the Mayas could not have known beforehand that the summer solstice would fall on this date. I do not, however, think that this objection has any weight. Mr. Bowditch has shown that the Mayas seem to have been skilful enough to have calculated the true length of the tropical year very closely while leaving their shifting calendar undisturbed, and Mr. Morley agrees with him. They appear to have allowed for a shift of 25 days in 104 years, which is an error of less than a day in 400 years, and so if they had made the calculation during cycle 8, say 400 and odd years previously, they would have come within a day of the true time. The foregoing consideration may therefore be taken to be an independent confirmation of the correctness of the correlation of Maya and Christian chronology arrived at by Mr. Bowditch and Mr. Joyce.

I now come to a matter which is far more conjectural. If the same calculation is applied to the date 9-9-9-16-0, 1 Ahau 18 Kayab, found on p. 24 of the Dresden Codex, it is found to be 13 June 94 A.D. Now, this date appears to be connected with the Venus cycle occurring on the right of the same page, and on p. 50 the same date is made the end of the series relating to the synodic revolution of Venus, and as it there follows immediately after the distance number of eight days, the length of time in which Venus is invisible at inferior conjunction, it would appear that the conjunction took place shortly before this time. If we assume that the initial series value of this date on p. 50 is the same as that of the same date on p. 24, it would follow that there should have been an inferior conjunction of Venus on or shortly before 13 June 94 A.D. I have no means of verifying this, which is properly a matter for a skilled astronomer to compute, but it is worthy of note that if we calculate back from the transit of Venus of 23 May 1769 (Julian) to 13 June 94 A.D., by dividing the number of days distance between the dates, 611,771 by 583.92, the number of days in a synodic period of Venus, we obtain a remainder of 406.76. Therefore, by this calculation there was a conjunction 406.76 days after 13 June 94, or 177.16 days before it, because 177.16 is the difference between 406.76 and 583.92. Neglecting fractions, there remain 177 days, which is the number given on p. 53a of the Codex for the length of six lunar months. Possibly the intention was to record a date which, according to the calendar, should be the date of a conjunction, but was really six lunar months in error.

There is, however, a more probable explanation. Mrs. Zelia Nuttall (*American Anthropologist*, Vol. 6, No. 4, 1904), has shown that the Venus cycle of 104 years (equal to two calendar rounds) is about five days longer than the true time. This being so, the error in 9-9-16-0-0 (72 calendar rounds) would be $36 \times 5 = 180$ days, very nearly the 177 days, and the error in 9-9-9-16-0 would be practically the same. If then an inferior conjunction of Venus did in fact occur 177 or 180 days before 13 June 94 A.D., there would have been an excellent reason for the Mayas to record specially this date, if on it their official Venus calendar was 180 days too late, that being the number of days required to correct the Venus calendar since the mythical zero point, 4 Ahau 8 Cumhu, if they used a correction of five days to each Venus cycle, and also being half the number of days in a *tun*. It would be parallel to the instances shown by Mr. Bowditch of the record of dates on which the solar calendar was a definite amount in error. Considering the wonderful astronomical knowledge of the Mayas, we may be fairly certain that they noticed the error of their Venus calendar, and used a correction. If the date 9-9-9-16-0, 1 Ahau 18 Kayab, has this meaning, the calculation of the amount of the error of the Venus cycle must have been made while that date was still in the future, and in fact, it must have been made at the same time as the calculation relating to the date 9-9-16-0-0 4, Ahau 8 Cumhu. This would make it all the more probable that the calculated error was 180 days, while the true error on the former of these dates was 177 days or less. It is to be noted that on p. 24 of the Codex these two dates are connected by the secondary series 6-2-0, as if to connect the Venus and solar computation.

If the theory put forward in this paper as to the origin of the zero point of Maya chronology is sound, it will show a remarkable parallel to the Hindu Kali Yuga era of 3102 B.C., which has been shown also not to be a historical date, but one arrived at by calculating back till a date was reached which would be the commencement of a cycle harmonising lesser cycles (Dr. J. F. Fleet, in *Journ. Roy. Asiatic Soc.*, April, 1911). It is curious that another parallel can be found between the Hindu method of reckoning by "expired" instead of current time periods and the Maya reckoning by elapsed time.

TABLE OF MAYA DATES WITH EQUIVALENTS IN JULIAN CALENDAR.

							B.C.
The normal date or zero point-	4	Ahau	8	Cumhu	-	-	13 January 3642
1- 0-0-0-0 - - -	3	"	13	Chen	-	-	14 April 3248
2- 0-0-0-0 - - -	2	"	3	Uayeb	-	-	15 July 2854
3- 0-0-0-0 - - -	1	"	8	Yax	-	-	14 October 2460
4- 0-0-0-0 - - -	13	"	13	Pop	-	-	14 January 2065
5- 0-0-0-0 - - -	12	"	3	Zac	-	-	15 April 1671
6- 0-0-0-0 - - -	11	"	8	Uo	-	-	15 July 1277
7- 0-0-0-0 - - -	10	"	3	Zac	-	-	15 October 883
8- 0-0-0-0 - - -	9	"	3	Zip	-	-	14 January 488
8- 1-0-0-0 - - -	7	"	8	Pax	-	-	1 October 469
8- 2-0-0-0 - - -	5	"	8	Zac	-	-	18 June 449
8- 3-0-0-0 - - -	3	"	8	Xul	-	-	5 March 429
8- 4-0-0-0 - - -	1	"	8	Pop	-	-	21 November 410
8- 5-0-0-0 - - -	12	"	13	Kankin	-	-	8 August 390
8- 6-0-0-0 - - -	10	"	13	Chen	-	-	25 April 370
8- 7-0-0-0 - - -	8	"	13	Zodz	-	-	10 January 350
8- 8-0-0-0 - - -	6	"	18	Kayab	-	-	27 September 331
8- 9-0-0-0 - - -	4	"	18	Ceh	-	-	14 June 311
8-10-0-0-0 - - -	2	"	18	Yaxkin	-	-	1 March 291
8-11-0-0-0 - - -	13	"	18	Uo	-	-	16 November 272
8-12-0-0-0 - - -	11	"	3	Pax	-	-	3 August 252
8-13-0-0-0 - - -	9	"	3	Zac	-	-	20 April 232
8-14-0-0-0 - - -	7	"	3	Xul	-	-	5 January 212
8-15-0-0-0 - - -	5	"	3	Pop	-	-	22 September 193
8-16-0-0-0 - - -	3	"	8	Kankin	-	-	9 June 173
8-17-0-0-0 - - -	1	"	8	Chen	-	-	25 February 153
8-18-0-0-0 - - -	12	"	8	Zodz	-	-	12 November 134
8-19-0-0-0 - - -	10	"	13	Kayab	-	-	30 July 114
9- 0-0-0-0 - - -	8	"	13	Ceh	-	-	16 April 94
9- 1-0-0-0 - - -	6	"	13	Yaxkin	-	-	1 January 74
9- 2-0-0-0 - - -	4	"	13	Uo	-	-	18 September 55
9- 3-0-0-0 - - -	2	"	18	Moan	-	-	5 June 35
9- 4-0-0-0 - - -	13	"	18	Yax	-	-	20 February 15
							A.D.
9- 5-0-0-0 - - -	11	"	18	Tzec	-	-	7 November 5
9- 6-0-0-0 - - -	9	"	3	Uayeb	-	-	25 July 25
9- 7-0-0-0 - - -	7	"	3	Kankin	-	-	11 April 45
9- 8-0-0-0 - - -	5	"	3	Chen	-	-	27 December 64
9- 9-0-0-0 - - -	3	"	3	Zodz	-	-	13 September 84
9-10-0-0-0 - - -	1	"	8	Kayab	-	-	31 May 104
9-11-0-0-0 - - -	12	"	8	Ceh	-	-	16 February 124
9-12-0-0-0 - - -	10	"	8	Yaxkin	-	-	3 November 143
9-13-0-0-0 - - -	8	"	8	Uo	-	-	21 July 163
9-14-0-0-0 - - -	6	"	13	Moan	-	-	7 April 183
9-15-0-0-0 - - -	4	"	13	Yax	-	-	23 December 202
9-16-0-0-0 - - -	2	"	13	Tzec	-	-	9 September 222
9-17-0-0-0 - - -	13	"	18	Cumhu	-	-	27 May 242
9-18-0-0-0 - - -	11	"	18	Mac	-	-	11 February 262
9-19-0-0-0 - - -	9	"	18	Mol	-	-	29 October 281
10- 0-0-0-0 - - -	7	"	18	Zip	-	-	16 July 301

										A.D.	
10-	1-0-0-0	-	-	5	Ahau	3	Kayab	-	2	April	321
10-	2-0-0-0	-	-	3	"	3	Ceh	-	18	December	340
10-	3-0-0-0	-	-	1	"	3	Yaxkin	-	4	September	360
10-	4-0-0-0	-	-	12	"	3	Uo	-	22	May	380
10-	5-0-0-0	-	-	10	"	8	Moan	-	7	February	400
10-	6-0-0-0	-	-	8	"	8	Yax	-	25	October	419
10-	7-0-0-0	-	-	6	"	8	Tzec	-	14	July	439
10-	8-0-0-0	-	-	4	"	13	Cumhu	-	29	March	459
10-	9-0-0-0	-	-	2	"	13	Mac	-	14	December	478
10-	10-0-0-0	-	-	13	"	13	Mol	-	31	August	498
10-	11-0-0-0	-	-	11	"	13	Zip	-	18	May	518
10-	12-0-0-0	-	-	9	"	18	Pax	-	2	February	538
10-	13-0-0-0	-	-	7	"	18	Zac	-	20	October	557
10-	14-0-0-0	-	-	5	"	18	Xul	-	7	July	577
10-	15-0-0-0	-	-	3	"	18	Pop	-	24	March	597
10-	16-0-0-0	-	-	1	"	3	Moan	-	9	December	616
10-	17-0-0-0	-	-	12	"	3	Yax	-	26	August	636
10-	18-0-0-0	-	-	10	"	3	Tzec	-	13	May	656
10-	19-0-0-0	-	-	8	"	8	Cumhu	-	29	January	676
11-	0-0-0-0	-	-	6	"	8	Mac	-	16	October	695
11-	1-0-0-0	-	-	4	"	8	Mol	-	3	July	715
11-	2-0-0-0	-	-	2	"	8	Zip	-	20	May	735
11-	3-0-0-0	-	-	13	"	13	Pax	-	5	December	754
11-	4-0-0-0	-	-	11	"	13	Zac	-	22	August	774
11-	5-0-0-0	-	-	9	"	13	Xul	-	9	May	794
11-	6-0-0-0	-	-	7	"	13	Pop	-	24	January	814
11-	7-0-0-0	-	-	5	"	18	Kankin	-	11	October	833
11-	8-0-0-0	-	-	3	"	18	Chen	-	28	June	853
11-	9-0-0-0	-	-	1	"	18	Zodz	-	15	March	873
11-	10-0-0-0	-	-	12	"	3	Cumhu	-	30	November	892
11-	11-0-0-0	-	-	10	"	3	Mac	-	17	August	912
11-	12-0-0-0	-	-	8	"	3	Mol	-	4	May	932
11-	13-0-0-0	-	-	6	"	3	Zip	-	20	January	952
11-	14-0-0-0	-	-	4	"	8	Pax	-	7	October	971
11-	15-0-0-0	-	-	2	"	8	Zac	-	24	June	991
11-	16-0-0-0	-	-	13	"	8	Xul	-	11	March	1011
11-	17-0-0-0	-	-	11	"	8	Pop	-	26	November	1030
11-	18-0-0-0	-	-	9	"	13	Kankin	-	13	August	1050
11-	19-0-0-0	-	-	7	"	13	Chen	-	30	April	1070
12-	0-0-0-0	-	-	5	"	13	Zodz	-	15	January	1090
12-	1-0-0-0	-	-	3	"	18	Kayab	-	2	October	1109
12-	2-0-0-0	-	-	1	"	18	Ceh	-	19	June	1129
12-	3-0-0-0	-	-	12	"	18	Yaxkin	-	6	March	1149
12-	4-0-0-0	-	-	10	"	18	Uo	-	21	November	1168
12-	5-0-0-0	-	-	8	"	3	Pax	-	8	August	1188
12-	6-0-0-0	-	-	6	"	3	Zac	-	25	April	1208
12-	7-0-0-0	-	-	4	"	3	Xul	-	10	January	1228
12-	8-0-0-0	-	-	2	"	3	Pop	-	28	September	1247
12-	9-0-0-0	-	-	13	"	8	Kankin	-	15	June	1267
12-	10-0-0-0	-	-	11	"	8	Chen	-	2	March	1287
12-	11-0-0-0	-	-	9	"	8	Zodz	-	17	November	1306

									A.D.
12-12-0-0-0	-	-	-	7	Ahan	13	Kayab	-	4 August 1326
12-13-0-0-0	-	-	-	5	"	13	Ceh	-	21 April 1346
12-14-0-0-0	-	-	-	3	"	13	Yaxkin	-	6 January 1366
12-15-0-0-0	-	-	-	1	"	13	Uo	-	23 September 1385
12-16-0-0-0	-	-	-	12	"	18	Moan	-	10 June 1405
12-17-0-0-0	-	-	-	10	"	18	Yax	-	25 February 1425
12-18-0-0-0	-	-	-	8	"	18	Tzec	-	12 November 1444
12-19-0-0-0	-	-	-	6	"	3	Uayeb	-	30 July 1464
13- 0-0-0-0	-	-	-	4	"	3	Kankin	-	16 April 1484
13- 1-0-0-0	-	-	-	2	"	3	Chen	-	2 January 1504
13- 2-0-0-0	-	-	-	13	"	3	Zodz	-	19 September 1523
13- 3-0-0-0	-	-	-	11	"	8	Kayab	-	6 June 1543
13- 4-0-0-0	-	-	-	9	"	8	Ceh	-	21 February 1563
13- 5-0-0-0	-	-	-	7	"	8	Yaxkin	-	8 November 1582
13- 6-0-0-0	-	-	-	5	"	8	Uo	-	26 July 1602
13- 7-0-0-0	-	-	-	3	"	13	Moan	-	12 April 1622
13- 8-0-0-0	-	-	-	1	"	13	Yax	-	28 December 1641
13- 9-0-0-0	-	-	-	12	"	13	Tzec	-	14 September 1661
13-10-0-0-0	-	-	-	10	"	18	Cumhu	-	1 June 1681
13-11-0-0-0	-	-	-	8	"	18	Mac	-	16 February 1701
13-12-0-0-0	-	-	-	6	"	18	Mol	-	3 November 1720
13 13-0-0-0	-	-	-	4	"	18	Zip	-	21 July 1740
13-14-0-0-0	-	-	-	2	"	3	Kayab	-	7 April 1760
13-15-0-0-0	-	-	-	13	"	3	Ceh	-	24 December 1779
13-16-0-0-0	-	-	-	11	"	3	Yaxkin	-	10 September 1799
13-17-0-0-0	-	-	-	9	"	3	Uo	-	28 May 1819
13-18-0-0-0	-	-	-	7	"	8	Moan	-	12 February 1839
13-19-0-0-0	-	-	-	5	"	8	Yax	-	30 October 1858
14- 0-0-0-0	-	-	-	3	"	8	Tzec	-	17 July 1878
14- 1-0-0-0	-	-	-	1	"	13	Cumhu	-	3 April 1898
14- 2-0-0-0	-	-	-	12	"	13	Mac	-	19 December 1917

RICHARD C. E. LONG.

REVIEW.

History.

Rawlinson.

Intercourse between India and the Western World, from the Earliest Times to the Fall of Rome. By H. G. Rawlinson, M.A., I.E.S. Cambridge University Press. 1916. **71**

Mr. Rawlinson is already well known to Orientalists by his work on *Bactria* and other essays. He has now attempted a more difficult task, a consecutive survey of the intercourse between India and the West in ancient times, up to the fall of the Roman Empire. As far as it is possible to ascertain, no work based on recent authorities has dealt with this subject as a whole, although parts of it have been investigated from time to time. Yet it is of the greatest importance to the civilised world; now as of old the control, both military and economical, of the trade-routes between Europe and the East is the subject of contest, and the rivalry between land and sea-routes is no less keen than it was in the days of Solomon, of Alexander, or of Albuquerque.

The lines followed by traffic may be classed (1) as land-routes, including those mainly if not entirely confined to the land; (2) the route by the Persian Gulf, which was nearly equally divided between land and sea; and (3) that by the Red Sea, which, except for the short transit from that sea to the Mediterranean, was purely a sea-route; and (4) the entirely maritime line round the Cape of Good Hope, which, although dreamed of by Carthaginians and Greeks, was never in practical use before the time of Vasco de Gama.

In the earliest days the caravan-routes leading to the Black Sea or to the Syrian Coast by various lines seem to have been most used. How far the sea route to the Persian Gulf came into competition with these it is difficult to decide. Perhaps the evidence is insufficient to justify Professor Rawlinson in assuming that intercourse between the Hittites and the Aryans of the Panjāb was carried on by the Euphrates, the Persian Gulf, and the Indus. The overland route seems on the whole more likely to have been followed; for the difficulty of carrying on trade by the river and sea-route would have been enormous, and the passing allusions to Babylon do not necessarily imply that the sea-route was followed. But it is undoubtedly possible that the traffic between the emporium of Obolla, at the mouth of the Shatt-ul-'Arab, and South India, then, as afterwards, followed the sea-route, as the land-routes could not well compete with it.

It is regarding the trade with the ports of Western India that we have the greatest amount of information, and we find that this trade tended more and more to follow the line of the Red Sea from the Egyptian ports or from those on the Gulf of Akaba. The trade of Tyre and Palestine, barred from the Persian Gulf by the Assyrian power, for a time adopted this route, and the Ptolemies in Egypt, and after them the Roman Empire, followed the same course, the line of least resistance. Of this trade we have an accurate picture in the *Periplus*, which shows us how all traffic centred in a port at or near Aden, and was in the hands of the Arab sailors who brought the products of the East to that emporium and there exchanged them for the goods of the West.

During the prosperous days of the Roman Empire the land-routes from the Persian Gulf to the shores of the Mediterranean also carried on a flourishing trade, but these depended on the maintenance of a strong Government and were also no doubt affected by the progressive desiccation of the country between Syria and Mesopotamia, which brought about the gradual disuse of the caravan-routes across the desert from Petra and Palmyra, and the adoption of the more northerly line from Antioch to the Euphrates, corresponding very closely with that now followed by the Baghdad railway. This route, however, was more exposed than the more southern one, to the disturbance caused by wars and invasions.

After the break up of the Roman Empire both land and sea-routes fell into the power of the Empire of the Khalifs; Europeans lost all control over the trade, and a period commenced (which lasted until the Portuguese rounded the Cape of Good Hope), during which European trade with the East existed only by the favour of the Musalman rulers of Damascus, Baghdad, or Egypt. By payment of heavy duties Venice and Genoa were admitted to the Mediterranean ports under these rulers, who, on their part, obtained a very large revenue by tolerating this trade. This was especially the case with the Mamlūk Sultans of Egypt, through whose territory the whole of the Red Sea trade passed.

Mr. Rawlinson, however, does not extend his survey beyond the fall of Rome, and therefore does not deal with these later developments. His work is a full and interesting summary of the history of the dealings between East and West in the earlier periods, in the time of Alexander and his successors, especially the Ptolemies, and during the existence of the Roman Empire. In the earlier periods perhaps

sufficient attention is not given to the intercourse between Persia and India in the time of the Achæmenians, the importance of which is gradually coming to be more fully realised. With what may be called the Greek period Mr. Rawlinson deals very fully. In Chapter III he gives an excellent account of the Maurya Empire in the days of Megasthenes, and in Chapter IV of the Successors of Alexander, who for so long maintained a kingdom, or rather a series of kingdoms, in the Panjāb and Afghānistān. He has already treated of this part of his subject in a separate volume (*Bactria*, London, 1912): The Saka and Kushan dynasties which followed hardly receive sufficient space, for although they cannot be considered as in any way Western races, yet their kingdoms, closely connected with Parthia, were the most important link at that period in the chain which connected India with the West. This was especially the case with Kanishka, whose coinage shows the cosmopolitan interests of his dominions, including, as it does, representations of Persian, Greek, Buddhist, and Brahmanical divinities.

The fullest and most satisfactory part of Mr. Rawlinson's work is that dealing with the intercourse with Egypt under the Ptolemies and with the Roman Empire. Here the result of the accumulated information resulting from modern investigations has been brought together and combined into a consecutive account, which is probably a better guide to this difficult period than any other in existence. The account given on pp. 112-124 of the *Periplus* and what can be learnt from it, may be referred to as a model of what such an account should be.

In a work dealing with such a multiplicity of subjects it is inevitable that there should be differences of opinion on some points. Space does not permit allusion to many, but one or two mistakes, or what appear to be such, may be pointed out. On p. 117 the author refers to Surāshtra as a name "still surviving in Sūrāt." It would have been more correct to identify Saurāshtra with Sōrath in the Kāthiāwar peninsula, and to point out that Sūrāt probably represents only the name, but not the country to which it applied. On p. 14, in an argument in favour of the derivation of several western names from South Indian languages, the author includes the words for "rice," and says: "The Tamil *arisi* becomes *aruz* in Arabian and " *ῥυζα* in Greek." This derivation, first advocated by Caldwell (*Grammar of the Dravidian Language*, p. 92), cannot be accepted as satisfactory. It would be better to seek for the origin of the European names in the Sanskrit *vrihi*, which, in its Iraneān form, would naturally take the form *vrizi*, a form which has given rise to such modern words as the Persian *birinj* and the Pashto *vrizhe*. Evidently such an Old Persian word would pass easily into the Greek *oryza*, and even the Arabic *ruzz* or *aruzz* should most probably be referred to the Greek or Persian forms.

The frontispiece of the volume is a reproduction of a sculpture from Boro-Budūr, in Java, which represents a scene described as "A Hindu Ship arriving at Java." But can it be correctly so described? The scene is evidently an illustration of a Jātaka story, possibly the *Mahājanaka Jātaka*, where the hero's ship is driven ashore in a storm. In any case the sculpture, like all at Boro-Budūr, is purely Buddhist. Gautama Buddha himself appears among worshippers in the upper panel. The ship represented is, no doubt, one of a kind familiar to the sculptor, but is there any ground for identifying it as "Hindū"? May it not, for instance, have been Arabian?

Needless to say, even if these criticisms are justified, the value of the book as a whole is not affected. It is a work of great importance, and will, I think, be found indispensable as an introduction to its fascinating subject.

M. LONGWORTH DAMES.



IVORY COVER, BENIN.
(Diam. 6·7 in. = 17 cm.)

A CARVED IVORY OBJECT FROM BENIN.

ORIGINAL ARTICLES.

Africa: Art.

With Plate I—J.

Read.

On a Carved Ivory Object from Benin in the British Museum.*By Sir C. Hercules Read.***72**

It is but rarely that works of art from Benin have appeared in the market during the past few years. The endless streams of objects that were poured into Europe as a consequence of the punitive expedition have stopped, and the objects themselves are for the time at rest in collections, public or private. In ten years or more these latter change hands, and the specimens become the ordinary currency of the dealer and collector. In this way the curious ivory shown in the Plate has come into my possession. The owner had a somewhat grim history that the carving was used in human sacrifices, the head of the victim being impaled on a spike passing through the hole in the middle. It seemed, however, to be of sufficient interest to find a place in the national collection, where, thanks to the generosity of our Fellow, Mr. Louis Clarke, it will now remain.

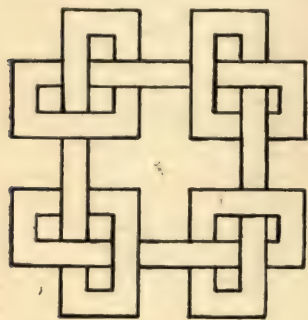
At first sight the general appearance of the piece hardly suggests African art, and, but for one feature, it might have been somewhat of a puzzle. This feature is the human head wearing a hat, and to anyone familiar with the more ancient examples from Benin, it would at once be clear that this piece had its origin there. Its form and make suggest that it has served as the cover of a cup or vase such as is figured in the British Museum volume,* though the latter is not quite so large, nor, on the inner side, is it so well finished, but the flange around the lower edge of the present specimen shows fairly conclusively the purpose it has served. It is in two pieces, with the junction across the middle, and now held together by copper wires. Though suggestive of a fracture, a closer examination shows that the cover has been originally made from two pieces of tusk, joined together much more neatly than at present, viz., by rivets of copper which were masked by the ornament and practically unseen. Great care has been bestowed on the finish of the work, and though the precision of the lines would suggest the lathe, it is certain that the whole has been executed by free hand. The underside is hollowed and polished, and the contour of the inner part follows very nearly that of the ornamented exterior. The two views shown in the Plate render it unnecessary to go into great detail in describing the decoration. The whole of the outer side has been engraved, leaving the design in relief, while the engraved portions were originally set with brass inlay. The greater part of this metal has now disappeared, not a surprising circumstance seeing that it was held in place, not by rivets, but by some adhesive substance. On all the sections, however, enough remains to prove that the whole was ornamented in the same way.

The designs are not all of the known Benin types; in fact, the human face above mentioned is the only feature that can be called typical. The scheme consists in a horizontal band filling the external face of the cover and containing two designs, each repeated six times alternately; above and below is a cable band. The inner side of the middle of the cover is plain, except for four vertical channels, which, like the rest, have once been filled with metal inlay. The two designs I have mentioned are: (1) The human head, already mentioned, drawn in a somewhat diagrammatic style, but very clearly intended to represent a full-face Portuguese wearing a low helmet and with long, straight hair and beard. This is a type thoroughly familiar, and seen in every collection that contains the metal panels with reliefs. The precise type seen in this cover may be compared with those shown in the Museum album, Pl. XIII, 1-3. The metal inlay in these heads has survived better than the rest.

* Read and Dalton: *Antiquities from . . . Benin*. 1899. Pl. IV, 2.

having been more deeply set and hammered into position. (2) A rectangular fret filling up the whole of the field in each section. On the carving itself the meaning of this fret is not very clear, but on analysis it turns out to be a square with a simple knot at each angle, as may be seen from the annexed figure. This is no doubt related to the plaited designs common on Benin carvings and castings, and is certainly near kin to the knots of the same general design on a stool in General Pitt-Rivers' collection, figured in his work, Pl. 41, 318. The cable bands which bound these designs above and below are executed with unusual vigour, and there is also a great

decorative quality in the fretted panels, to which the diagrammatic heads make a pleasing contrast.



Another feature that adds not a little to the charm of the piece is a faint green tint, due to the presence of the brass inlays. For some reason this is much stronger on the upper edge than on the sides, and this part of the carving, moreover, is very much worn, the cable pattern being almost rubbed smooth in parts—as if it had been habitually standing with the upper edge downwards. As a matter of fact the whole surface shows signs of considerable use, and on that ground alone one would be inclined to set down the object as of con-

siderable age. There is every likelihood of its being three or more centuries old. The type of European shown is in all probability of the early seventeenth century, as the panels with similar heads almost certainly are. What evidence there is, extraneous or inherent, points to some such date.

It is hard to conceive the precise purpose of a cover of this peculiar shape. One may assume that the carefully-made hole in the centre was for dropping some small objects into the vessel to which it served as a cover, but at present its specific purpose is a mystery. I have looked through all the available books on Benin antiquities, and Mr. Ling Roth has also made diligent search, but with no useful result. The only piece of the kind I have found is in General Pitt-Rivers' *Antique Works of Art from Benin* (1900), where, on Pl. 30, Fig. 225, is an object of the same shape, but in brass, and almost of the same size, the brass example being 6.9 inches wide and the ivory one 6.7 inches. The main part of the decoration of the former is, however, of quite a different character, but it may not be without significance that it is confined within two cable bands, poorer in execution, but essentially the same as the borders on the ivory cover. General Pitt-Rivers could only describe his specimen as of unknown use, and does not even make any suggestion as to its purpose. That this was the same in both cases is almost certain, although there is no sign of a flange on the lower edge of the brass cover.

C. HERCULES READ.

Solomon Islands: Fish-hooks.

Woodford.

Fish-hooks from the Solomon Islands. By C. M. Woodford, **73**
C.M.G.

In looking through my collection I have come across some fish-hooks from the Solomon Islands and elsewhere, and as some of them are of unusual form, I have thought that rough illustrations of them might not be without interest.

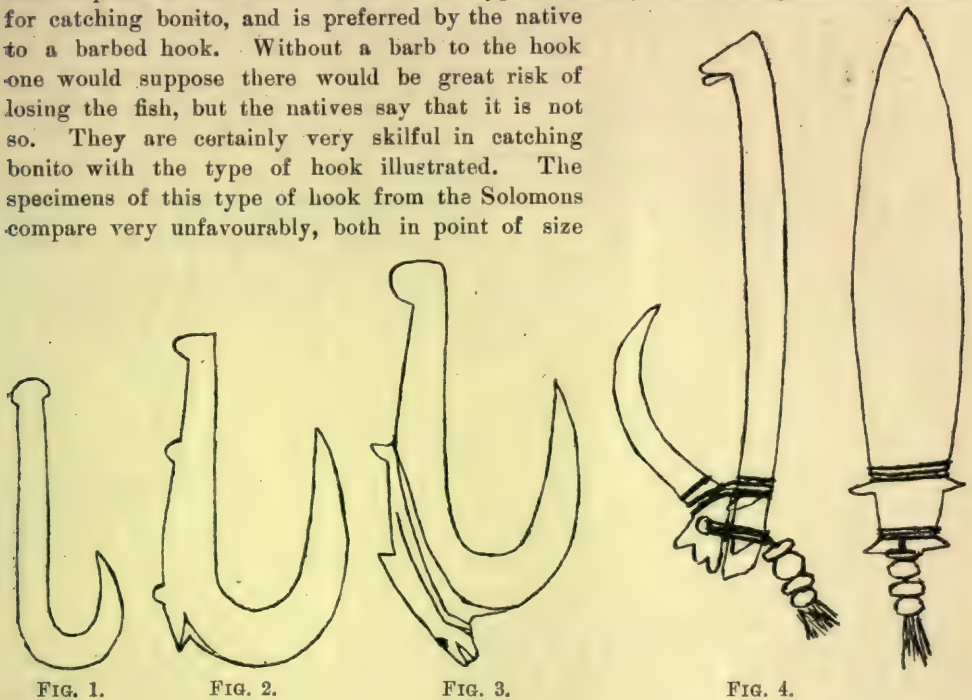
None of the hooks illustrated show any trace of a barb, and I do not remember having seen in the Solomons barbed fish-hooks of native manufacture, although it might be expected that the natives would have adopted the idea from the white man's fish-hook, with which they are now well supplied.

Fig. 1.—This is a hook of turtle-shell, and appears a clumsy enough implement in itself, unless it is intended to be both hook and bait in one; it may be meant to represent a worm, as is mentioned by Ellis in connection with hooks from Tahiti,* or it may be a portion only of a complete lure, similar to the one illustrated in Fig. 5.

Fig. 2.—A hook of black pearl-shell, with iridescence on one side of the bend of the hook only. This hook has a rudimentary representation of a fish on the upper side, and may be intended to be used without bait as an artificial lure.

Fig. 3.—A hook of white iridescent pearl-shell, with a figure of a small fish on the upper side, of more finished character than the fish represented in Fig. 2. Probably a complete lure in itself.

Fig. 4.—Is a lure of white pearl-shell with a hook of turtle-shell lashed on, and two white native shell beads, one red and one blue glass bead, attached as trailer with a piece of red wool. It is of the type commonly used throughout the Pacific for catching bonito, and is preferred by the native to a barbed hook. Without a barb to the hook one would suppose there would be great risk of losing the fish, but the natives say that it is not so. They are certainly very skilful in catching bonito with the type of hook illustrated. The specimens of this type of hook from the Solomons compare very unfavourably, both in point of size



and finish, with those used in the Gilbert and Ellice Groups and the Polynesian Groups to the eastward. In the Gilbert Group they sometimes reach a length of 4 or 5 inches, and special hooks of superior shape and finish are even known by name. When I was in the Gilbert Group in 1884, I was told that choice specimens of these hooks were sometimes sent as presents from island to island by the chiefs attached to the wing of the frigate-bird. I certainly saw at Kuria two captive frigate-birds, seated on perches, which belonged to the King of Apemama. When wild birds were seen, the captives were sent up as decoys at the end of a long string. Some fish was thrown down as bait, and when the captive birds settled to eat it, the wild birds joined them. When they were eating the fish, a string with a stone at the end of it was thrown over them in which their wings became entangled. I actually saw the attempt made to catch a wild bird. Reference to

* *Polynesian Researches*, Vol. II, chap. x.

a similar custom in the Ellice Group is made by Dr. Turner, of the London Missionary Society,* who relates that when he was at the island of Funafuti, in the native pastor's house, on a Sunday afternoon, a frigate-bird arrived with a note from another pastor at Nukufetau. It was a foolscap 8vo. leaf, done up inside a light piece of reed, plugged with a bit of cloth, and attached to the wing of the bird. It was dated on the previous Friday. The distance from Nukufetau to Funafuti is about 70 miles.

Fig. 5.—This is a very curious specimen. It consists of a turtle-shell hook, somewhat similar to Fig. 1. To this is attached by lashings a piece of porous red coralline, or shell, roughly shaped to represent a prawn. It is rendered more realistic by the addition of four pieces of vegetable fibre, representing legs or antennæ.

Figs. 6 and 7.—Small lures of lustrous pearl shell. They are used for taking the small fish, resembling sprats, which at certain times of the year congregate in shoals in shallow water near the shore. The lures are used with a light rod of bamboo about 6 feet long, and a fine line of about the same length. The lure is dropped about a foot deep into the water and drawn up to the surface with a jerking

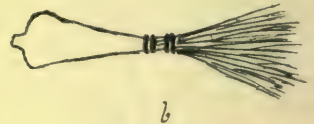
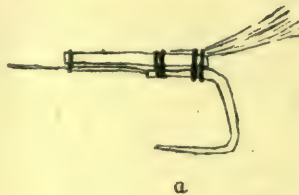
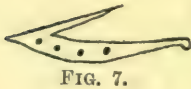
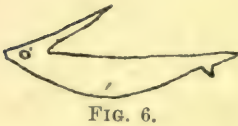
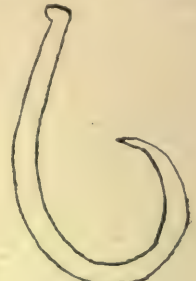
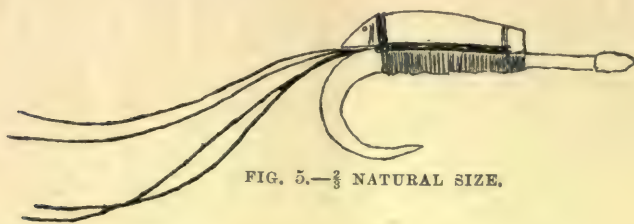


FIG. 9.

motion. When a fish is hooked it is skilfully dropped direct from the hook into a basket held ready for the purpose in the fisherman's other hand.

Fig. 8.—An ordinary wire nail adapted for use as a fish-hook. It will be noticed that the point is much recurved, which obviates the necessity of barbing.

Fig. 9, A and B.—Shows a lure from the Gilbert Group. In this case the hook is also made of a nail. The top of the lure, to which the hook is lashed, is made of black pearl shell and the tail of white feathers. The almost right angle bend of the hook is curious.

CHARLES M. WOODFORD.

Central America: Chronology.

The Maya and Christian Eras. By Richard C. E. Long.

Since the foregoing article was written (MAN, 1918, 70) I have seen **74**
Past and Future Eclipses (London, 1896), by Rev. S. J. Johnson, and have been

* *Samoa a Hundred Years Ago*. Macmillan, 1884, p. 282, chap. xxiii.

able to make some further calculations. The dates of eclipses following are all taken from his book.

On pp. 51-58 of the Dresden Codex is a series of numbers relating to the revolutions of the moon, depending on the periods of 11,958 and 11,960 days, of which the zero points are the days 11 Manik, 12 Lamat, and 13 Muluc. The number 11,960 also appears on pp. 51a-52a as the difference of a series having as zero points 12 Lamat, 1 Akbal, 3 Eznab, 5 Ben, and 7 Lamat, which series is also concerned with the lunar revolutions. It therefore appears that the day 12 Lamat is connected with the moon, and as this day is only found as the terminal date of an initial series twice in the Codex, namely, on pp. 51 and 52, the very pages on which these lunar series occur, it is worth inquiring if the dates of these initial series fell on either full or new moon. The date on p. 51 is 10-19-6-1-8, 12 Lamat 6 Cumhu (25 January 682 A.D.). Now there was an eclipse of the moon (i.e., full moon) on 16 April 683 A.D. The distance between these dates is 446 days, which divided by 29.53, the mean length in days of a lunation, leaves a remainder of 3.05. Therefore, the initial series date fell within three days of the full moon. This close correspondence furnishes a further proof of the accuracy of the method of correlation of Maya dates. There may not be even an error of three days, because the series on pp. 51-58 seems itself to allow for an adjustment of the lunar series by two or three days. If that be so the correspondence is perfect. The date on p. 52 is 9-16-4-10-8, 12 Lamat 1. Muan (15 March 227 A.D.). A similar calculation from the eclipse of the sun (new moon) on 12 April 237 A.D. shows that this initial series date fell 4.52 days before full moon. That is not so good a correspondence. But the matter may be carried further. There is on the same page the date 9-16-4-11-3, 1 Akbal 16 Muan (30 March 227 A.D.). This is only 15 days later, and falls 19.04 days before full moon, or 4.28 days before new moon. There is also on this page the date 9-16-4-11-18, 3 Eznab 11 Pax (14 April 227 A.D.). That is 15 days after the last, and falls 4.05 days before full moon. Here again, allowing for the adjustment of 3 days, there would be only one day's error. The distances of 15 days separating the dates are no doubt taken as the nearest even number of days to half a lunar month. The intention of the Maya scribe seems to have been to note the day 12 Lamat, which ought officially to have fallen on the full moon, but as, in fact, it was somewhat in error, he reckoned forward two officially estimated half lunations to a date which came very near the true full moon.

It seemed worth trying if any of the other initial series in the Dresden Codex have any relation to the moon, and in the following table the distances before full moon of all the remaining series in the Codex are given. In all cases these are obtained by counting the number of days from the nearest eclipse and dividing by 29.53. I have followed the values given by Dr. Forstemann for these series ("Commentary on the Maya Manuscript in the Royal Public Library of Dresden," *Peabody Museum Papers*, Vol. IV, No. 2). This agrees with the list given by Mr. Morley (*op. cit.*, p. 271) except in the third last and the last series. In the third last one he gives 10-11-3-18-4, which must be an error, as it contains 18 in the *uinal* place, and in the last one he gives 8-16-19-10-0, thus agreeing with the Codex and not accepting Dr. Forstemann's correction. This would be 10 Ahau 8 Pop (18 September 154 B.C.), and 25.44 days before full month.

Probably this list shows a connection between some at least of these dates and the moon, although, as they do not reach any of the days in the Maya calendar associated with the lunar series, a connection would hardly be expected. Still it is rather remarkable that 14 out of 20 come within a distance of 3 days or 15 days (half a lunation) or 18 days (15+3).

LIST OF DATES.

Page of Codex.	Initial Series.	Distance before Full Moon in Days.
24	9-9-9-16-0, 1 Ahau 18 Kayab (13 June 94 A.D.)	- 3·07
24	9-9-16-0-0, 4 Ahau 8 Cumhu (21 June 100 A.D.)	- 17·82
31 and 62	8-16-14-15-4, 4 Kan 17 Yaxkin (26 January 158 B.C.)	- 8·35
31 and 63	8-16-3-13-0, 4 Ahau 8 Mol (9 February 169 B.C.)	- 25·8
31 and 63	10-13-13-3-2, 4 Ik 15 Zac (14 October 570 A.D.)	- 15·63
43	9-19-8-15-0, 4 Ahau 13 Zip (14 July 290 A.D.)	- 24·46
45	8-17-11-3-0, 4 Ahau 13 Chen (27 February 142 B.C.)	- 10·17
51	8-16-4-8-0, 4 Ahau 3 Zip (26 October 169 B.C.)	- 3·04
52	9-19-5-7-3, 7 Lamat 1 Muan (28 February 287 A.D.)	- 16·2
58	9-18-2-2-0, 4 Ahau 8 Muan (12 March 264 A.D.)	- 2·28
58	9-12-11-11-0, 4 Ahau 13 Muan (14 April 155 A.D.)	- 20·61
62	8-16-15-16-1, 4 Imix 9 Mol (7 February 157 B.C.)	- 15·59
63	8-11-8-7-0, 4 Ahau 18 Yaxkin (22 February 263 B.C.)	- 0·78
63	10-13-3-16-4, 7 Kan 2 Chen (24 August 553 A.D.)	- 15·52
70	9-13-12-10-0, 4 Ahau 8 Chen (5 December 175 A.D.)	- 18·77
70	9-19-11-13-0, 4 Ahau 3 Uayeb (19 May 293 A.D.)	- 18·01
70	10-17-13-12-12, 4 Eb 5 Pop (26 February 650 A.D.)	- 24·29
70	10-11-4-0-14, 9 Ix 7 Zip (11 May 522 A.D.)	- 15·41
70	8-6-16-12-0, 4 Ahau 13 Kayab (28 September 354 B.C.)	3·5
70	8-6-19-10-0, 4 Ahau 18 Kankin (3 August 351 B.C.)	- 0·03

The period of 11,960 days has been shown by Dr. Forstemann to relate to the movements of Jupiter as well as of the moon, being nearly equal to 30 synodic periods of Jupiter. The same days of the tonalamatl, the 260-day period, which are connected with this series should therefore also be connected with Jupiter as well as the moon, and the initial series ending in these days should show dates having a relation to that planet's movements. In this again I am unable to make the astronomical computation, but by counting back 616,912 days, the distance from the conjunction of Jupiter on 19 March 1916 (Julian) to the date 9-16-4-10-8, 12 Lamat 1 Muan (15 March 227 A.D.), on p. 52 of the Codex, and dividing by 398·867, the length of the synodic period of Jupiter, the remainder is 263·618. This would show that a conjunction took place 263·618 days after the terminal date of the initial series. It is very remarkable how close the result is to 260, the number of days in the tonalamatl. The difference of 3 or 4 days would be probable enough as an error of observation, and there would have been a good reason for the Mayas to have noted a date on which their official Jupiter calendar was one whole tonalamatl in error. The error was such that the conjunction would again fall on 12 Lamat, the calculated day of the tonalamatl, though not on the calculated day of the 11,960-day period. The Codex, too, seems to confirm this, because in the ascending series on pp. 51a-52a, the terms of the series after the first are all multiples of 11,960 with two exceptions. One of these exceptions is the tenth term, which is 2-11-10-11-0, or 31 times 11,960 plus 260 (Bowditch: *The Numeration, &c.*, p. 49). That is to say, we have a series composed of multiples of the estimated synodic periods of Jupiter, with an addition in one place of 260 days, which is itself approximately the error by which the initial series date connected with the Jupiter periods differs from the true time of the planet's conjunction. The other exception in the series is the sixth term, which is 9-19-12-0, or 6 times 11,960 plus 120. Now Dr. Forstemann holds that the Mayas estimated the synodic

period of Jupiter at 398 days. This would make 30 synodic periods equal 11,940 days, and so make the calculated (not the true) error of the 11,960-day period be 20 days. Therefore the error in 6 periods of 11,960 days would be the 120 days which we find added when 6 periods are reached in the series. The ninth term is 1-9-18-0-0, or 18 times 11,960, so that the difference between this and the tenth term is 13 periods plus 260 days, which latter is the error in 13 periods. On the whole the confirmation is very striking.

I have calculated in the same way the distances from the conjunction of the other initial series ending in days associated with the period of 11,960 days, but no result of value appears except in the date 9-16-4-11-18, 3 Eznab 11 Pax (14 April 227 A.D.). If to this be added 502 days, the distance of the first picture from the beginning in the series on pp. 51-58, the date reached is 9-16-6-1-0, 11 Abau 3 Tzec (29 Aug. 228 A.D.). This by calculation would have fallen 130.485 days before a conjunction of Jupiter, that is just half a tonalamatl.

The period of 11,960 days is thought by Dr. Forstemann to refer also to the synodic period of Mercury, so the same initial series might have reference to this planet's movements. Counting back 617,274 days, the distance from the superior conjunction of Mercury on 16 March 1917 (Julian) to 9-16-4-10-8, 12 Lamat 1 Muan (15 March 227), and dividing by 115.877, the number of days in a synodic period of Mercury, leaves a remainder of 113.098, showing the conjunction to have happened about 3 days after it. The date 9-19-5-7-8, 7 Lamat 1 Muan (28 February 287), fell 113.851 days before conjunction or about one day after it, and the date 10-19-6-1-8, 12 Lamat 6 Cumhu (25 January 682), fell 24.839 days before conjunction. This last does not show a connection, but if 502 days, the distance to the first picture, be counted forward, the date reached fell 112.224 days before conjunction or about 2 days after it. None of the other days which are zero points of the 11,960-day series show a connection.

This series is also held by Dr. Forstemann to relate to Saturn, though contrary to Mr. Bowditch's opinion. Counting back from the conjunction of Saturn on 15 June 1915 (Julian), and dividing by 377.75, the synodic period, gives the following results:—

Date.	Distance in Days before Conjunction.
10-19-6-1-8, 12 Lamat 6 Cumhu (25 January 682)	- - 216
10-19-6-1-8, plus 502 days	- - - 91.75
9-16-4-11-3, 1 Akbal 16 Muan (30 March 227)	- - - 131
9-16-4-11-3, plus 502 days	- - - 6.75
9-16-4-10-8, 12 Lamat 1 Muan (15 March 227)	- - - 146

I omit the rest as they show no connection. The distance of 6.75 days is very close, and the distances of 91.75 and 131 are nearly quarter and half of a tonalamatl respectively. The distance of 146 is nearly 148, which is the distance between the second and third terms on page 53a of the Codex.

It appears, then, that of the five initial series dates ending in days associated with the 11,960-day period, there are three falling near the full moon and two near new moon, two show a connection with the conjunction of Jupiter, three with the superior conjunction of Mercury, and three, or perhaps four, with the conjunction of Saturn. This would show the reason why the Mayas specially recorded these lunar dates more than any other full or new moons. It is probably impossible, astronomically, that there could be any larger number of coincidences between the conjunctions of the planets and the moon's phases. It is also noteworthy that the series on page 24 relating to Venus and the summer solstice fell near new and full

moon respectively. Apparently, the general principle of these initial series was to note a date of new or full moon which also was a date of some other astronomical phenomenon, and to take this day as a starting point for an ascending series.

On pages 43b-44b of the Codex is an ascending series which appears to relate to the synodic period of Mars, reckoned at 780 days, and having as its zero point 3 Lamat. A similar series occurs on p. 59, having as its zero point 13 Muluc. Along with this last is another series relating to the same period, and having as zero point 9 Ik. These three series present difficulties compared with those relating to the moon and the other planets. There are no initial series in the Codex ending in the respective days, but two of these days of the tonalamatl are reached by secondary series counted backwards from three different initial series which are near the respective ascending series. The distances between these three dates are none of them even multiples of 780, though the distance between those on page 58 is an even multiple of 260, so that the three dates cannot relate to the same points in the revolution of Mars. But by counting forward in each case the secondary series, which connects the date with its initial series, a date is reached from 61 to 65 days before conjunction. The dates calculated for conjunction are obtained by counting back the number of days from the conjunction of Mars on 15 February 1915 (Julian), and dividing by 779·936, the synodic period. They are as follows:—

Page of Codex.	Date.	Distance before Conjunction.	Secondary Series.
43	9-12-10-16-9, 13 Muluc 2 Zip (6 August 154 A.D.) -	316·86	251
58	9-18-0-12-9, 13 Muluc 2 Mol (18 October 262 A.D.)	573·536	511
58	9-19-7-15-8, 3 Lamat 6 Zodz (27 July 289 A.D.) -	153·768	352

Subtracting the secondary series from the distance before conjunction leaves a remainder in the first case of 65 and in the second case of 62 days. The third secondary series 352 equals 260 plus 92, and subtracting 92 from the distance before conjunction leaves 61. Possibly the Mayas considered that Mars became invisible then. In the last case, of course, the reckoning is to a point one tonalamatl distant from the others in the revolution of Mars. No date appears connected with 9 Ik. The distance forward in the tonalamatl from 13 Muluc to 9 Ik is 113 days. Now the difference between 779·936, the true synodic period of Mars, and 780, the period used by the Mayas, is ·064, so that the error reckoned from the zero point 4 Ahau 8 Cumhu to 9-12-10-16-9, 13 Muluc 2 Zip, would be 113·728 days, that is, less than a day different. If, then, they dropped the 113 days and commenced a new Mars series starting from 9 Ik, their Mars calendar, reckoning from 4 Ahau 8 Cumhu, would be rectified.

The next subject to be inquired into is what relation the days of the Maya tonalamatl bore to the similar periods of the Aztecs and Cakchiquels. The tonalamatl and the lesser periods of 13 days and 20 days of which it is composed resemble our own week in being independent of the seasons and also in having a sacred character. As the days of our week are the same wherever it is used, so that, e.g., Friday falls on the same day throughout the whole area occupied by Christianity and Islam, it might be expected that the tonalamatl days would fall on the same days amongst all the peoples using it, and that the Maya day Imix would fall on the same day as the equivalent Aztec day Cipactli, and the day 1 of the period of 13 days would fall on the same day with each, and so on.

Now, according to Dr. Seler (*Bulletin of the Bureau of American Ethnology*, p. 43) the 13 August 1521 was the Aztec day 1 Coatl. The distance from this date to 11 September 1536 is 5,508 days, which divided by 13 leaves a remainder of 9, and divided by 20 leaves a remainder of 8. The 11 September 1536 was,

therefore, 10 Acatl, the 153rd day of the tonalamatl in the Aztec reckoning. But it was 9 Imix, the 61st day of the tonalamatl in the Maya reckoning, so that the Aztec was 92 days ahead in the tonalamatl, 1 day ahead in the 13-day period, and 12 days ahead in the 20-day period. It is worthy of note that if the difference had been one day less the 13-day periods would have agreed amongst the Aztecs and Mayas and the tonalamatl reckoning would have differed by 91 days, a number which Dr. Forstemann holds was quarter of the ritual year. This number is used as the difference of the series on pp. 31-32 and 62-64 of the Codex. Possibly the difference between the tonalamatls was once 91, and the extra day's difference is connected with the shift of one day in the dominical days in Yucatan. Whether it be 91 or 92 days, the difference is very nearly that between the vernal equinox and the summer solstice. All that can be said is that there appears to be evidence of a shift by a period of days recognised by the Mayas, and that this shows a definite relation between the two calendars.

In the Cakchiquel calendar it can be shown by the dates given by Cyrus Thomas (*22nd Annual Report of the Bureau of Ethnology*) that the 4 October (St. Francis's day) 1556 was the day 7 Camey, the 46th of their tonalamatl. The distance of this date from 11 September 1536, 9 Imix, is 7,328 days, so that the 4 October 1556 would be 10 Muluc, the 49th day of the Maya tonalamatl. Here there is an even more definite relation than in the case of the Aztecs, for the Cakchiquels were 3 days behind the Mayas in the tonalamatl, in the 13-day period and in the 20-day period, while they were 3 days in advance of the Mayas of Yucatan in the dominical days. Again, though the nature of the change cannot be explained, it looks as if the change of dominical days had some connection with it.

The calculation of the exact dates reached at any particular time by the Maya shifting calendar shows that during cycle 9, the great period of Maya civilisation, the months fell in about the same part of the Julian year as in the time of Landa. Cycle 9 lasted from 94 B.C. to 301 A.D., and by counting back 1,460 years (the number of Julian years in which the shifting calendar would completely shift round) from 1542, the year reached is 82 A.D., which fell in *katun* 9 of cycle 9, just the most flourishing period. Thus it confirms the opinion of Dr. Forstemann that the calendar in the time of the inscriptions and the Codex was about coincident with that in Landa's time. It was so then; but in the intervening period it had shifted completely round. Again, it confirms Mr. Bowditch's opinion regarding the early dates at Palenque. These are:—

Temple of the Cross	-	12-19-13-4-0, 8 Ahau 18 Tzec (9 May 3649 B.C.).
Temple of the Cross	-	1-18-5-3-2, 9 Ik 15 Ceh (17 March 2888 B.C.).
Temple of the Sun	-	1-18-5-3-6, 13 Cimi 19 Ceh (21 March 2888 B.C.).
Temple of Foliated Cross	-	1-18-5-4-0, 1 Ahau 13 Mac (4 April 2888 B.C.).

Mr. Bowditch assumed that the calendar was coincident with that of Landa, which would make the three last dates cluster round the vernal equinox. The above calculation shows that all four cluster round it, though of course some are not as near as would appear at first sight because they are in the Julian calendar. It is interesting to note that the calendar had shifted round nearly twice between these early dates and those in cycle 9. Hence there appears another reason in addition to those given by Mr. Bowditch for selecting these dates. It would appear that no other dates would both fulfil the conditions of giving half a year of intercalary days as he shows, and also falling near the equinox.

It is a curious fact that the duration of the great Maya period nearly coincided with that of the Roman Empire as distinguished from the Republic, and the duration

of the later Maya culture with that of the Byzantine Empire, like it a degenerate off-shoot. In view of Professor W. Flinders Petrie's theory of the cyclic character of civilisation, the comparison may have some value. RICHARD C. E. LONG.

Nigeria: Ritual.

Thomas.

(I) *Agricultural Rites.* By N. W. Thomas.

75

The following notes refer in the main to the Edo proper, who occupy the neighbourhood of Benin City, of which the native name is Edo. Yaju, Agbede, Idegun, Wari, Ama, Uzaitui, Auči, and Agenegbodi are in the Kukuruku country, north-east of Edo, Agenegbodij being on the Niger (Ohimi is the Edo name), opposite Ida. Ijeba is in the Ora country, west of the Kukuruku, where the language comes nearer that of Benin City, and Okpe is a Kukuruku hill town just on the Yoruba border, where there is great linguistic diversity. Irua is in the Eša (Ishan) country.

(a) FOWL OF THE FARM.

The most interesting farm custom that came to my notice was the ritual connected with the "king's farm," a sort of "garden of Adonis," to which I recorded a parallel in the rice customs of Sierra Leone in a report published in 1916. I found no traces of similar customs in other parts of Nigeria, but no special inquiry was made; and as the widespread nature of the Sierra Leone rite was only apparent when leading questions were addressed to the oldest inhabitants, it is possible that they were originally more widely spread in Nigeria; but it must be remembered that Benin City occupied a peculiar position.

Some distance along the Sapoba road, leading out of Benin City, lay the "King's farm." It was a small plot of ground, not more than 12 feet square perhaps, which was, according to the native custom, changed from year to year, finally returning to the starting point after a certain time. The actual work of the farm was done by the *oꝛoꝛugbo* (fowl of the farm), a criminal sent by the king to the Iviemezi, in whose charge he remained, though he lodged in the house of Izoba, and under whose superintendence his work was done.

The first step was for him to clear the ground; this done, the Iviemezi were sent by Okao Aviugbe to the villages to inform the children of the princes (*ogyē*) settled there that the farm was cleared, and that they must come and join the *oꝛoꝛugbo* in burning the rubbish. When all was ready the "fowl" planted the yams, seven on one side and seven on the other with a pathway between; it was his duty to watch it night and day till the yams were grown.

When the yams were ripe a ceremony took place, in which the participants were the Iviemezi, the Egaiwo (council of the city) and their servants, and the king. The Egaiwo dressed as though to visit the king, and two of them actually remained in the palace, while four went forward to Izoba's house; whether the servants actually went to the farm I was unable to ascertain; they came back with the Iviemezi, who according to one account went to the farm to report on the crop; but according to their own account visited the farm only twice—when it was cleared and when it was being planted.

On the whole it seems probable that the Iviemezi saw the "fowl" dig the yams, that they then came back, met the servants of the Egaiwo, and proceeded with them to the house of Izoba; here they joined the four members of the Egaiwo, and then went ahead to report to the king, "It is well with the farm," returning to meet the Egaiwo. The king sent *fufu* and drinkables to the farm, all of which had to be consumed there, probably by the Iviemezi. The yams were dug by the *oꝛoꝛugbo*, tied up near Izoba's house, and finally taken to the king by the "fowl."

Either before this, or when the yams were in the palace, a diviner drew omens from them as to the prospects of the yam crops in all the kingdom of Edo; if five or six had grown, there would be plenty; if less, famine; if more, abundance and great wealth. The origin of the farm is said to have been in the desire of the king to promote the welfare of the farmers in all his dominions; he sent a man to consult a diviner, who recommended that the king's farm should be made. The diviner was consulted at intervals as to what should be done. Sometimes, not every year, he announced that the farm required a "man with two heads," i.e., a man suffering from elephantiasis of the scrotum; a suitable man was provided, and cut down with a sword upon the king's farm at a time fixed by the diviner; the body of the victim was thrown away in the bush, the *oxorugbo* proceeded to clear the ground; this would be in the month of March.

The *oxorugbo* stayed on the farm till he died; he is said to have begged cowries from passers-by.

The king appointed a chief as *iyugbo* (mother of the farm); if he died there would be a famine; but he was not connected with the king's farm, so far as I could discover.

A parallel, though not a very close one, to this custom of the king's farm is found at Ama, near Uzia, in the kingdom of Agbede. When they make Oheli (on August 7th in 1909) they cut a small farm and plant yams in it, perhaps fifty, which are used to sacrifice to Oheli, mixed with ordinary yams. All natives of Ama had to return to the village for this ceremony.

(b) UTU, THE YAM SHRINE.

The new yam customs apart, the most important and widespread agricultural rite is that connected with *Utu*. At Ugo, on the east of Edo, close to the Edo-Ika boundary, when yams are big they get an *iximi* stick and take it to the farm; after planting it in the middle they put one on it and lay before it cutlasses, hoes, a calabash of palm wine, and four kola; *fufu* is sacrificed, kola broken, and all the men eat. When they call on *Utu* they say: "Save these yams for us"; then they wash their hands; all who have farms near the place come and eat of the *fufu*, and the rite is celebrated on every farm.

To be distinguished from this is the sacrifice to Osa, the supreme god, performed after the farm is burnt and holes are made for the yams; a pot is buried with a piece of chalk and a red parrot's feather in the middle of the farm; sacrifice is offered to the pot.

At Gwatō a man builds a small house like *Aluake* (the shrine of Ake) in his yam field, and sacrifices to a small pot which he puts in it; this is called *utu*; when the yams are climbing the poles the farmers cook and sacrifice each to his own *utu* at any time that is convenient to him.

If anyone catches a tortoise or a snail when they are clearing the bush, he gets a branch of an *otua* tree and puts it in the ground; the snail or tortoise is killed there for the good of the farm.

They make the Ikure feast before the trees are felled, and sacrifice *fufu*, and sometimes a tortoise, to Iviotai.

At Usen when the yams get many leaves they take oil and salt in a calabash spoon and go to the farm with one snail and one yam.

When they dig the yams they sacrifice to *iximi*, saying: *giniabie*, *giniagama*; *agale*, *omole*, *amele* (let yams bear, let yams be good; if they eat, children eat, wife eats).

At Yaju they sacrifice to a yam heap, taking mashed yam and palm oil; each man gets one leaf and eats it, and all big men take one to the farms.

At Jaghe, near Agbede, when the yams are grown, each head of a family takes *fufu* and sacrifices to *Utu*, a stick like *iximi* or *otua* placed in the middle of the farm near the farm house.

At Wari they sacrifice to *Utu* at the time of new yams; each man brings his hoe to the place where he sacrifices to his father, and the head of the family brings a cock; the cock is sacrificed and *fufu* offered by the other men, after which seven yams are given by each man to his father-in-law, and five to anyone who is looking after a goat for him. One big yam is put down by the head of the family, and *fufu* is sacrificed to it on the following day. A similar custom is found at Idegun.

At Ama the farmer must make one heap with his own hands, plant a yam in it, and sacrifice *fufu*.

At Awoiki one heap is made specially, one yam planted in it; when the yam begins to climb the stick a snail shell which has been used to sacrifice to a man's father is hung on it; a snail or *fufu* is sacrificed there in April when the yams are just growing and are being put on the sticks. *Fufu* is sacrificed a second time when the yams are stacked; snail shells are hung on the frame of the stack.

At Eda each man has his own *utu*; and he sacrifices a fowl to it when he is preparing to dig up his yams; snails are also sacrificed.

At Ekbe, when the yams grow well each man takes some and cooks *fufu*; when he reaches the farm he calls all yams to come and eat there. One heap is made specially big to represent *utu*.

In Agbede itself an *adanio* (*iximi*) tree represents *utu*; the chiefs buy snails near harmattan time and the head man kills them and makes soup. All men bring hoes and cutlasses to the tree, which is for the whole town, and sacrifice. They also sacrifice to *utu* on the farm with fish, rat, and the leg of an animal; they cook *fufu* and any kind of bean at home, then go to farm, call all the workers together, and sacrifice to a heap between two lines of yams, telling all the yams to come and eat, and all the *ebu* that are on the farm.

They also sacrificed to Osun when they planted yams (*Osuoko*); the king chose a man to kill a cock.

At Idumibo they sacrifice old yams to *utu* at new yam time.

At Fugar each man has *elumu* on his farm; it is an *iyoto* (*iximi*) tree, and he sacrifices a fowl to it. The yams are planted first, then the tree in the middle of the farm.

At Uzaitui there is no special *utu*, but sacrifice is offered to all the yams, at the foot of a palm tree if there is one. The head of the family kills a goat and offers *fufu*; blood is rubbed on the trunk of the tree and on the yams, and the sacrificer says:—

Maidze, maitoto, maideviime amai, emaim mimala enodzi maitoto (yams, grow in the ground for us, plenty; for us to get food, to give us life).

At Auči they have one *utu* in the farm, and one at home. When they finish planting yams they divine and sacrifice a goat on the farm by cutting its throat. A soup pot with water is put near a certain heap; there the sacrifice is made. *Fufu* is cooked at home; the goat is skinned on the farm, and cooked there. If the compound sends a man to help the sacrificer, the assistant gets the leg, the neck, and the liver; the remainder goes to the farmers. Each compound has its own *iyoto*, to which they sacrifice at new yam time.

At Agenegbodi, five days after they finish the sacrifice to Otsa (Osa), they cook food at home and drink palm wine for *utu*; but there is no sacrifice. For the yams they sacrifice a cock and a goat on the farm, and call the yams to come and eat.

(c) OTHER CULTS.

In connection with agricultural cults must also be mentioned the *Idiogbo* or *Idignidugbo*, the *idign* (properly "elders"; here "objects of cult of ancestors") of the first people who made farms along any road. In Ugo, when the yams are nearly ready, all the farmers on the road collect and clear a space; a small house is built, and chalk placed in it, to which *fufu* is sacrificed. In Gwatō, no house is built, but, as at Idumowina, three *uxure* (staves) of *iximi*, *otua*, or *oxixa*, are placed by the side of the road, chalk laid down, and sacrifice offered.

At Idumowina, on the same road, I found cowries in front of an Iroko tree; farmers offer them, if they use the road, and also bring first fruits of their crops. At Jagbe they have *Enokoho* to keep animals from the farms (identify this with *Idiogbo*); black beans are sacrificed to it annually.

The women also have a similar *ebò* (demi-god), known as *ugame* or *igame*. At Iyekovia the women of a quarter go and eat *fufu* on a road, and sometimes sprinkle the road with water; pots are then turned upside down, and left there. At Utekon women sacrifice to *Igame* when they wish to plant corn, *oko*, etc., in new farms. At Ugo, when a woman wants to plant ground nuts, she sacrifices *fufu* and *kola* to *Ugame*, and puts cowries and seed before it also; *ugame* is represented by an *iximi* tree, but there is no *ugame* in Ugo itself.

The New Year's sacrifice to father and mother is often intimately connected with agriculture. At Idegun the Ukpe festival is celebrated when they have planted the yams; at Idua when they are ready to plant them. At Auči a native box with a lid is hung in a small house in the street; this is called *Ukbe*, and sacrifice is offered to it when they begin their farms. Each compound has its own *ukbe*.

At Ijeba the festival of *Obazu* is celebrated for fifteen days after they have cleaned the ground for their new farms. They sacrifice to their fathers, and for fifteen days many kinds of work are prohibited; no woman may make cloth, nor may anyone work on his farm or plant there under penalty of a fine of a goat and 1s. 6d. in cowries. No woman may appear on the street, and palm tree fences are put up so that they may not see the street. When *Obazu* comes out, the *ikute* (*uxure*) is placed against the wall, and on that day they begin to plant yams; goats, rams, etc., are sacrificed to the *ikute*, which no woman is permitted to see. The *ikute* is placed against the wall of the *Obazu* house in the street, and each quarter celebrates the festival simultaneously. If anyone plants before *Obazu* is ended, a leopard may carry off his wife or child to the farm which he has planted. The *Obazu* festival is celebrated to make the farms bear well.

The feast of new yams is an important one in many places. At Gwatō when new yams are nearly ready each man takes a coconut, a cock, or a goat, and sacrifices to his head. A big man dances till dawn and the dancers give him cowries or throw them on him.

At Ijeba when new yams begin, doctors sacrifice a dog, make soup and eat it. Five days before they eat of the yams each man's wife cooks *fufu* of them and each man offers to his father; they kill cows only, no goats or fowls. The name of this feast is *Eketikili* (Edo, *ihua*).

At Idegun they sacrifice to *Oone* at new yam time and the whole town cooks *fufu* and meat and each man takes his own to the shrine, called *Oxumuxidiri*. Each man gives twelve yams to his father-in-law, and the same number to everyone who takes charge of a goat for him, to the elder members of his family (receiving cowries in return), and five to each of his wives. They bring hoe and cutlass from the farm and each family puts them in a heap, cooks *fufu* and fish and sacrifices, saying: "If anyone eats yams, don't let them humbug his belly too much." Then

each man ties the cloth of such of his sons as are grown to be *igele* (young men), and they dance round the town; this festival is called *inorhuele*.

Uzia celebrates Esona at new yam time. All sacrifice to their fathers; and the next day each gives seven yams to his father-in-law, and brings hoe and cutlass to the shrine of his father.

At Uzaitui they sacrifice to *ikumi* (medicine) at new yam time in the king's house; each man takes one yam and the king's wives cook *fufu*. Anyone who has *oyaga* medicine can eat of this *fufu*, and when the *fufu* is finished anyone can eat of the new yams.

If anyone is in a distant country he may eat new yams, but on his return he must take a hen to the priest, who sacrifices to *oyaga*.

At Okpe *ijike* is a drum beaten after new yams are eaten. They say: "Last year I ate new yam, this year I do it again. I don't die this year."

At Idumibo a dog is killed to the king's *Osun* at new yam time and all people bring him new yams.

At new yam time in Irua they sacrificed a human victim to an *iroko* tree and danced there, saying: "Save us." Then they killed fowls, goats, and kids; when they finished cooking they brought *fufu* to the tree and ate; the bones were hung in the tree and they rubbed their bodies with white clay. N. W. THOMAS.

REVIEWS.

Africa, East: Linguistics.

Beech.

Aids to the Study of Ki-Swahili: Four Studies Compiled and Annotated.

By Mervyn W. H. Beech, M.A., F.R.A.I. Kegan Paul, Trubner and Co., Ltd. New York: E. P. Dutton and Co. xvi + 179 pp.

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These four studies are designed to assist students who are already acquainted with the Swahili language in their preparation for the higher standard examination of the Government. The preface gives an interesting account of Swahili traditions as to themselves and their origin. Then follows a treatise on Ki-Swahili writing, that is, Ki-Swahili written in the Arabic character. The subject is by no means easy, and Mr. Beech's notes are the first attempts to deal with it in English. After some full explanations of the alphabet and orthographic signs, and some remarks on the elegancies of correspondence, he gives facsimile specimens, first of letters written as they should be, and then of actual letters and manuscripts received by himself. The letters are accompanied by transliterations and the manuscripts also by translations. The second study consists of two fairly long Ki-Swahili stories with translations and notes on idioms derived from the explanations of the narrators. The third study is a collection of enigmas and aphorisms with similar explanatory notes. The final study is a Ki-Swahili account of magic in Pemba. The book is a very successful combination of useful and interesting matter. The student will certainly find it an aid to his studies, whilst the ethnologist will find in it much information about the most important people of East Africa.

S. H. RAY

Asia Minor: History.

Jastrow.

The War and the Bagdad Railway. By Dr. Morris Jastrow, Ph.D., LL.D. Philadelphia. 1917.

77

In this work, Dr. Morris Jastrow, the Professor of Assyriology in Pennsylvania University, gives in a popular form his impressions on the military importance of Asia Minor, as illustrated at various periods of history from the earliest days of civilization up to the present war. His theory is that Asia Minor is a "hinterland" to Syria, Palestine, and Egypt towards the Mediterranean, and to Mesopotamia towards the Persian boundary. He does not here seem to use the word "hinterland"

in the sense which it had when first invented and used by the Germans as an excuse for their African annexations. It then implied the asserted right of every country which owned a strip of coast (especially in Africa) to take possession, if strong enough, of all the inland country behind it for the purpose of exploiting its natural resources. Such a claim had, of course, no justification in nature or history, but, having once been adopted by a powerful monarchy, it was of necessity used in self protection by others. This, however, is not what Dr. Jastrow means by "hinterland." He means that Asia Minor is a powerful natural fortress, which, if occupied by a warlike race, threatens the security of peaceful and prosperous regions in the plains. This is a commonplace of history, but it does not make the peninsula of Asia Minor a "hinterland" in any accepted sense of the word. It is an important military position, but not a "hinterland."

The accounts of early relations between this strong plateau when occupied by the Hittites and the great Empires of Babylonia, Assyria, Persia, and Egypt are well explained, and the resemblance between the position of the Hittites and that of the Ottoman Turks is also brought out; but the many points of difference are not sufficiently dwelt on. Dr. Jastrow works his theory too hard. Can it really be believed (as he asserts on page 64) that the defeat of the Arab invaders of France by Charles Martel in 732 had any connection with the failure of the Khalifas to take Constantinople? Nor is Dr. Jastrow's knowledge of Turkish history very accurate. He says (page 73) that Selim I conquered Persia, Hindustan, Egypt, Syria, and the coast line of Arabia! This will be news to students of Persian and Indian history. Selim doubtless wished to conquer Persia, and probably India also. He won one great battle against Ismail, Shah of Persia, but he never got possession of any important part of Persia, and could not even take Baghdad, which fell into the hands of his successor, the great Sulaiman, twenty years later. Selim made no attempt on India. His successor tried to find a footing on the sea coast of Gujarât, but met with signal defeat at the hands of the Portuguese. It is evident, therefore, that Dr. Jastrow's history must be accepted with caution. Nevertheless, the book is not without value. Perhaps the most useful part, as well as the most complete, is that regarding the Baghdad Railway, which gives much useful information derived from personal observation.

M. LONGWORTH DAMES.

Religion.

Montgomery.

Religions of the Past and Present: A Series of Lectures delivered by **78**
Members of the Faculty of the University of Pennsylvania. Edited by James
 A. Montgomery, Ph.D., S.T.D. Philadelphia and London: J. B. Lippincott Co.
 1918.

This volume consists of a course of lectures delivered during the winter of 1916-17 by members of the Faculty of the Graduate School of the University of Pennsylvania. The lectures are fourteen in number—on Primitive Religion, the Egyptian Religion, that of Babylonia and Assyria, the Hebrew Religion, that of the Veda, Buddhism, Brahmanism and Hinduism, Zoroastrianism, Mohammedanism, the Religion of Greece, that of the Romans, that of the Teutons, Early Christianity, and Mediæval Christianity. They were delivered by authorities on the various subjects, inspired by wide views and scientific study; and it is not surprising that they are said to have aroused enthusiasm and interest. In each case, however, the subject was so vast and the survey necessarily so rapid, that an outline only was possible, and important details had to be passed over. In fact they are addressed, not to scientific, but to popular audiences. Yet scientific readers will find much in them that is worth reading. The lectures—it could not be otherwise—are quite "up to date," and put before the reader with lucidity and point the results of the

latest inquiries. The editor, writing on the Hebrew Religion, states the purpose of the course as "not so much to give the history of the great religions as to present their contents, especially as these have had effect and value in the world." And this purpose has been generally adhered to by the lecturers. The result of this has been often unfortunate, since the origins, whether of the religion itself or of particular features of it, even if of supreme importance for understanding it and its extension and influence, have had to be, if not left in silence, treated in a very cursory manner, in order to deal with its maturity and central ideas. A notable exception is the lecture on the Religion of Greece by Dr. Walter Woodburn Hyde, the longest and most attractive in the book. It is an illuminating sketch of the history of Greek religion from its prehistoric beginnings, so far as they have been unveiled by archaeological discoveries, through its gorgeous maturity to its decline and final expiring flickers. The animism from which it started, the various influences which developed it, the position of the Homeric poems, the mysteries Orphic and Eleusinian, the philosophical inroads upon it, are all sketched, as far as the limits of the lecture permit.

Taken altogether, it would be hard to find a better introduction than this course for anyone who wished to know something of the great religions of the world and their relation to one another, or one more likely to lead him on to scientific investigation for himself. And that is doubtless what the writers would most desire.

E. SIDNEY HARTLAND.

ANTHROPOLOGICAL NOTES.

Anthropology in the United States.

Dr. Alfred Marston Tozzer, of the Peabody Museum (Harvard University), is in the military service of the United States. His work has certain anthropological aspects.

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Mr. George G. Heye has greatly advanced the cause of American Anthropology by the establishment of a magnificent new Museum at Broadway and 155th Street, New York. The name of the institution is the "Museum of the American Indian, Heye Foundation." Its inception and completion are largely the work of Mr. Heye, who may, therefore, rightly be regarded as one of the greatest friends of anthropological science. On the staff of the Museum are: George G. Heye, Esq., Professor Marshall Saville, Dr. George Pepper, Dr. Theodoor de Booy, Mr. F. W. Hodge, and others. The Museum forms one of a group of beautiful buildings, the others being the Hispanic Society of America and the American Geographical Society.

Mr. Frederick Webb Hodge, lately Ethnologist-in-charge of the Bureau of American Ethnology, Washington, is now with the new Museum of the American Indian, New York City.

Dr. Hiram Bingham, of Yale University, is in the military service of the United States and is at present in Europe.

Dr. C. F. Newcombe, of Victoria, Vancouver Island, who has an intimate knowledge of the tribes of the North-west coast, conducted an expedition, during 1917, for the Peabody Museum of Harvard University, to the remote villages of the Kwakiutl Indians, situated upon the inlets of South-western British Columbia. He secured an unusually good collection, illustrating the ceremonies and domestic life of this people. Among the objects may be mentioned several large cannibal bird masks used in the winter dances. Dr. Barrett, Director of the Milwaukee Public Museum, also made a large collection about three years ago among the coast Indians, principally the Haida. As such things are no longer made, they will become increasingly scarce for collectors.





H. Balfour del.

SOME ETHNOLOGICAL SPECIMENS FROM THE CHATHAM ISLANDS.

ORIGINAL ARTICLES.

Ethnology.

With Plate K.

Balfour.

Some Specimens from the Chatham Islands. By H. Balfour, M.A.

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The specimens figured on the accompanying plate are selected from a number of objects collected by Mr. Clough many years ago in the Chatham Islands, and purchased by me for the Pitt Rivers Museum at Oxford in 1893. In addition to the examples here illustrated and described, the collection included some fifty stone adze-blades, a few bone fish-hooks, etc.

Fig. 1.—A well-made dagger of bone, apparently that of a large cetacean. It is 22·5 cm. in length and is made of a single piece. The blade tapers gradually to a point and is lozenge-shaped in transverse section, the obtuse angle being more clearly defined on one surface than on the other. At its junction with the grip, the blade is shouldered. The grip is circular in section and terminates in a large, rounded pommel, which is separated from the grip by a groove forming a neck. It is a carefully-made and shapely weapon of a type hardly to be expected from this locality. As far as I can ascertain, it is unique. It is without doubt the actual specimen referred to by E. Tregear (*Trans. New Zealand Inst.*, XXII, 1889, p. 79), who in his remarks upon the Clough collection of Chatham Islands objects, says: "Among other curiosities is a bone dagger, about 9 inches long, the blade "being about 4½ inches in length, with a double edge. I do not know of any other "Polynesian people having used the dagger except the Hawaiians . . ., but "Tapu assured me that the weapon was known and used by the ancient Moriori." I can recall nothing resembling this dagger either from Polynesia, from Melanesia, or from Micronesia, and I am, therefore, unable to link this form with any type from the Pacific Islands. It seems likely, in fact, that this type of bone dagger may have been evolved locally. One would turn to New Zealand in seeking for a parallel, but I can recall no similar example either from North or from South Island, although Mr. Skinner and others have pointed out the cultural similarities which indicate a link between New Zealand (especially the Otago district) and the Chatham Islands.

Fig. 2.—Spatulate club made from a fairly compact schist containing quartz and micaceous grains. Specific gravity 2·65 to 2·7,* length 34·9 cm. The general form is that of the Maori *mere* and the distal end is sharp-edged. There is no sharp demarkation between the blade and the grip, the one merging gradually into the other, and the lateral edges becoming more rounded and blunter as the grip is approached. This restriction of the sharp cutting edge to the distal end is a primitive feature in this type of club, and points to the probable derivation from a *toki*, or adze type, which General Pitt Rivers (Colonel Lane Fox) urged many years ago (*Primitive Warfare*, 1868, section ii, p. 421, and *Journ. Ethnol. Soc.*, N.S., ii, 1870, p. 106). The expanded stop, or pommel, is roughly carved, and is broadly notched at the extremity; the ornamental shaping of this end is not quite symmetrical. There is no perforation for a wrist-thong, such as almost invariably occurs in the Maori *mere*, and this may be regarded as a primitive feature, though the expanded pommel acts as an effective stop. This specimen has been made by careful "battering" of the stone, and has not been ground.

Fig. 3.—Single-edged, chopper-like club, *okewa*, made from a schist, though of a coarser and more laminated kind than the last. Length 29·5 cm. The blade is sharp-edged along one margin only, the cleaving-edge extending for about half the whole length. The remainder of this margin is re-entrant, to form the narrower

* I am indebted to Professor W. Sollas for identification of the material of the stone implements.

grip which terminates in a downward projection, or stop. The workmanship is very rough, the shape having been produced by battering only, and there has been no attempt to achieve a finished surface. In spite of its rudeness, it is a not unhandy weapon. More or less closely allied forms of stone club from the Chatham Islands are figured by Giglioli (*La Collezione Etnografica*, 1911, pt. 1, Pl. p. 48), who shows a far more shapely and finished specimen of the *okewa*; by Partington (*Album*, II, Pl. 235, Fig. 1), from a specimen in the British Museum, closely similar to the one in the Giglioli collection; by Von Haast (*Trans. New Zealand Inst.*, XVIII, 1885, Pl. i), whose figure more nearly corresponds with the example which I here illustrate, though there is no stop at the end of the grip; and by Skinner (*Journ. Roy. Anthr. Inst.*, XLVI, 1916, p. 196, Fig. 20), who records an example in the Otago Museum, which resembles the Giglioli and British Museum examples, but has no trace of a stop. An undecorated Maori wooden club of the *waha-ika* type in the British Museum, appears to be nearly related to these *okewa* clubs of the Chatham Islands in their more finished and perfected form, while a very rare type of chopper-like greenstone *mere* figured by Hamilton (*Maori Art*, 1896, Pl. XLVIII, Fig. 2), would seem to be morphologically related to this series. It was found in a Maori burial cave north of Auckland.

Fig. 4.—*Mata* of slate showing imperfect cleavage. Specific gravity 2·8, length 16·3 cm., width 11·8 cm. This is a fairly typical example of the very roughly made *tanged* blades which have been found abundantly in the Chatham Islands, both on Rekohu and on Pitt Island. These are reputed to have been used as blubber-knives, the flesh of the grampus and other cetaceans having been much valued as food. As is usual with the *mata*, the workmanship is exceedingly rough, the natural cleavage planes being utilised for producing the thin blade, whose nearly straight cutting edge is formed by the intersection of two cleavage-planes, and shows no attempt at trimming by secondary flaking or battering. The narrowed tang is fashioned by rough battering of the margins and is quite blunt at the edges. This rough and rather haphazard method of manufacture seems to apply generally to the *mata*, and results in great variety of outline and of form of the cutting edge. The object seems to have been to produce by the simplest means a *tanged* implement having a cutting-edge of some sort, the details of shape being of slight importance. Partington (*Album*, III, Pl. 223, Fig. 2) shows a *mata* fitted with a modern haft of wood, said to be after the old style, but I have not been able to ascertain whether these blades were usually hafted, or whether they were sometimes merely held in the hand, as seems not unlikely, since the tang in the present instance would furnish a convenient hand-grip.

A point of interest in regard to these Chatham Islands *mata* types, is to be found in their analogies elsewhere. Rough blades of this *tanged* form are rarely met with in the Pacific, but I have recently drawn attention to the similarity which exists between the *mata* of the Chatham Islands and the *mataa* of Easter Island (*Geographical Journal*, May, 1917, p. 345, and *Folk-Lore*, XXVIII, 1917, p. 358). The latter are, it is true, made from flakes of obsidian and not from slate or schist, but there is much general resemblance between the two series, not only in form and in mode of manufacture, but also in name. In the Easter Island *mataa* the cutting-edges are simply formed by the intersection of two large flake surfaces, and are exceedingly sharp. Also, like the Chatham Islands examples, they are extremely variable in outline, which is often very unsymmetrical, as might be expected from the crude method of arriving at the result. The tangs were formed by flaking the margins, usually with no great care. Obsidian, unlike slate or schist, flakes very readily and effectively. It is known that the Easter Islanders hafted their *mataa*, which appear to have served largely as weapons.

The possibility of there being a real relationship between the tanged blades of Easter Island and the Chatham Islands is greatly increased by the discovery in the latter group of a *mata* made of *obsidian*, which, judging from the photograph kindly shown to me by Mr. Skinner, is undistinguishable from many Easter Island examples. The rarity of obsidian examples in the Chatham Islands is explained by the scarcity of this material. Von Haast (*Trans. New Zealand Inst.*, XVIII, 1885, p. 26) mentions that volcanic glass, *tuhua*, was not obtainable in any quantity, although a reef of it exists under water at the south-east corner of the island at Manukau. It would be only natural for the natives to substitute the abundant, if less efficient, slates and schists for the rare obsidian, and the employment of a different class of stone would impose a somewhat different method in shaping the implements, since the processes applicable to the one material cannot be employed with the other. The possibility, of course, remains that the Chatham and Easter Islanders may have independently evolved these similar tanged stone blades. I am no believer in the unwarranted doctrine that instances of independent invention of similar appliances are impossible. At the same time, I have urged for a quarter of a century or more that such occurrences should not be assumed until the alternative case for common origin and dispersal from a common centre has been carefully investigated. I have already hinted (*op. cit.*) that the *mataa* of Easter Island may be referable, like many other items in the culture of that island, to the intrusion of a *Melanesian* element. This view, which as regards the *mataa* is tentative only, is based upon the apparent absence of similar implements among Polynesian peoples, and upon the fact that a tanged obsidian blade, strikingly recalling the form of the better examples of *mataa*, though of finer workmanship, was found in the Yodda Valley in British New Guinea, within the area, that is, influenced by Melanesian culture (see MAN, 1915, 91, Pl. M.). Nor is this an isolated example from New Guinea, though admittedly rare. That there was a Melanesian element in the culture of the Chatham Islands (and in New Zealand) seems to be fairly generally admitted, and although its exact provenance has not yet been accurately determined, the apparent fact that the Moriori culture was influenced by a non-Polynesian element is of some importance to the comparative study of the *mata* of the Chatham Islands and the *mataa* of Easter Island, as accentuating the possibility of their being morphologically related.

Figs. 5 and 5a.—Grotesque statuette carved in pumice-stone. Height 27 cm. This is one of the rare examples of the human form carved in stone from the Chatham Islands. The figure is very rudely executed in the rough, soft, vesicular material. The surface detail has been somewhat obscured by abrasion and the specimen is evidently an old one. It represents a squatting figure with knees and elbows strongly flexed, the hands, apparently placed on the sides of the head or over the ears. The facial features are but sketchily indicated; the eyes and eyebrows are in relief, but the nose either was not represented or has been weathered away. A noteworthy feature is seen in the great prominence given to the ribs, which suggests a state of extreme emaciation. This latter peculiarity again suggests a possible cultural link between the Chatham Islands and Easter Island, since one of the marked characteristics of a large proportion of the well-known human effigies carved in *toromiro* wood, is the very pronounced manner in which the ribs are indicated, combined with other details which show that the intention was to represent emaciated human forms, or, possibly, the dead. Apart from this common feature of the "staring" ribs, no resemblance can be seen between the Chatham Islands pumice figure and the Easter Island wooden statuettes, and the difference in the rendering cannot be ascribed merely to the difference in the material used. A seeming link between the two types is, however, afforded by a wooden figure from the Chatham Islands now in the Canterbury Museum, Christchurch, N.Z. Sketches

of this figure are given by Partington (*Album*, III, Pl. 223, Fig. 1), and Mr. Skinner has shown me some good photographs of the specimen. In spite of the rudeness of its execution and the limited amount of detail indicated, this figure bears a general resemblance to the Easter Island wooden figures, and the exaggerated prominence of the ribs greatly accentuates the similarity. There is at least a possibility of a community of origin for these wooden figures from the Chatham Islands and Rapanui, and thus, by implication, is suggested a possible affinity for the figure of pumice-stone here represented.

In view of the interest which attaches to the ethnology of the Chatham Islands and to the diagnosis of the elements from which the culture of this group has been evolved, I have thought it worth while to publish these examples as an aid to further study. As far as I know the bone dagger is unique; nor do I know of any close parallel to the stone figure. As I have recently pointed out, the evidence of a strong Melanesian element in the culture of Easter Island is very striking, and inasmuch as the presence of a similar non-Polynesian strain in the culture of the Chatham Islands (and, one may add, also of New Zealand) is becoming more recognised, the suggestion offered as to the possible affinities of the *mata* and of the type of stone figure which I have described, may have some bearing upon the ethnological problems of the South Pacific.

HENRY BALFOUR.

Europe: Witchcraft.

Murray.

The Devil's Mark. By M. A. Murray.

Every witch was said to carry on his or her person a mark inflicted by the Devil when the witch joined the Society. Reginald Scot, the great witch-advocate of the sixteenth century, summarises the evidence thus: "The Divell giveth to everie novice a marke, either with his teeth or with his claws."* The *Lawes Against Witches and Conivration*, published "by authority" in 1645, state that "their said Familiar hath some big or little Teat upon their body, wher he sucketh them; and besides their sucking, the Devil leaveth other markes upon their bodies, sometimes like a Blew-spot, or Red-spot, like a flea-biting." Sir George Mackenzie, the famous Scotch lawyer, in describing what did and what did not constitute a witch, says, "The Devil's Mark useth to be a great Article with us, but it is not *per se* found relevant, except it be confest by them, that they got that Mark with their own consent; *quo casu*, it is equivalent to a Paction. This Mark is given them, as is alledg'd, by a Nip in any part of the Body, and it is blew. *Delrio* calls it *Stigma*, or Character, and alledges that it is sometimes like the impression of a Hare's foot, or the Foot of a Rat, or Spider."† Forbes, writing considerably later than Mackenzie, says: "On the meaner Proselytes, the Devil fixes in some secret Part of their Bodies a Mark, as his Seal to know his own by; which is like a Flea Bite or blew Spot, or sometimes resembles a little Teat, and the Part so stamped doth ever after remain insensible, and doth not bleed, tho' never so much nipped or pricked by thrusting a Pin, Awl, or Bodkin into it; but if the Covenanter be of better rank, the Devil only draws Blood of the Party, or touches him or her in some part of the body without any visible Mark remaining."‡

Local anæsthesia, as described by Forbes, is a phenomenon always associated in the popular mind with the Devil's Mark; and the evidence suggests that there is a substratum of truth in the statements. I can, however, offer no solution of the

* Reg. Scot: *Discoverie of Witchcraft*, Bk. III, Ch. 3. See also Danaeus: *Dialogue*, Ch. III.

† *Laws and Customs of Scotland*, Title x, p. 48.

‡ *Institutes of the Law of Scotland*, II, pp. 32-4.

problem as yet, and will therefore confine myself to the infliction of the "blew Spot" and the occurrence of the "little Teat."

It is clear that these Marks are two distinct things, and must be considered separately.

The Mark proper is the coloured spot or design which followed the infliction of a prick or nip by the claws or teeth of the Devil on the person of the neophyte. The red mark is described as being like a flea-bite, *i.e.*, small and circular; the blue mark seems to have been larger and more elaborate, apparently in some kind of design.

From the evidence given five facts are clear: (1) that the mark was coloured; (2) that it was permanent; (3) that it was caused by the pricking or tearing of the skin; (4) that the operator passed his hand or fingers over the place; (5) that the pain could be severe, and might last a considerable time. Put together in this way, the facts suggest tattooing.

Boguet says that in the east of France the mark was usually on the left shoulder and was in the shape of the foot, or foot-print, of a hare; but he gives a few exceptional cases: "On a veu vne, qui auoit vne figure rapportant en grandeur "à un petit denier, du centre de laquelle s'estendoient plusieurs filamens vers la "circonference. La marque de la Belouenette, qui a esté brulée a Besançon, estoit "au dessus de sa nature, vn peu plus bas que le nombril. Celle, dont Guillaume "Proby d'Anchay se trouua marquée au col du costé droit, estoit de mesme de la "grandeur d'un petit denier, tirant sur le brun. Iean de Vaux auoit la sienne au "doz, & ressembloit à vn petit chien noir."* Among the Aberdeen witches, 1597, the accusation against Andro Man was that "Christsonday (the Devil) bit a mark "in the third finger of thy right hand, whilk thou has yet to show"; and against Christen Mitchell, that "the Devil gave thee a nip on the back of thy right hand, "for a mark that thou wast one of his number."† De Lancre, the Inquisitor in the Basses Pyrenées, in 1609, remarks that "comme le Diable faict sa marque, on "sent vn peu de chaleur, qui penetre plus ou moins profondement la chair, que "plus ou moins il pince le lieu qu'il touche." He also gives the further information that the mark was made with "a pin of sham gold," and that the place was the white of the left eye; but the neophytes were also marked on the shoulder and on the side, the skin being torn to the effusion of blood, and the pain sometimes lasting as long as three months.‡ The Yarmouth witch, tried in 1644, saw a tall black man standing in the moonlight at her door; "he told her, he must first "see her Hand; and then taking out something like a Pen-knife, he gave it a little "Scratch, so that Blood followed, and the Mark remained to that time."§ Rebecca Jones, an Essex witch tried in 1645, confessed that "a handsome young man came "to the door, who asked her how shee did, and desired to see her left wrist: and "he then tooke a pin from this examinant's owne sleeve, and pricked her wrist "twice, and there came out a drop of blood, which he took off on the top of his "finger, and so departed."|| The child-witch, Jonet Howat, of Forfar, tried in 1661, said that "the devil kissed her and nipped her upon one of her shoulders, so "as she had great pain for some time thereafter"; later he came to her, and "calling her his bonny bird did kiss her, and stroked her shoulder (which was "nipped) with his hand, and presently after she was eased of her former pain." Elspet Alexander, of the same coven, was also marked in the shoulder; four weeks later, "the devil stroked her shoulder with his fingers, and after that she had ease

* Boguet: *Discours des Sorciers*, pp. 315-17.

† *Spalding Club Miscellany*. I, pp. 121, 165. Spelling modernised.

‡ De Lancre: *Tableau*, pp. 195, 399.

§ Hale: *Collection of Modern Relations*, p. 46. || Howell: *State Trials*. IV, 855.

"in the place formerly nipped by the devil."* Madame Bourignon, of Lille, was informed by the witch-girls under her care that "le Diable leur faict quelque marque comme avec une aleine de fer en quelque partie du corps."† Marie Lamont, tried in 1662, voluntarily made a confession, in which she said that "the devil nipit her upon the right syd, qlk was very painful for a tym, but yairefter he straikit it with his hand and healed it; this she confesses to be his mark."‡

The Somerset witches were marked on the fingers; it was stated of Elizabeth Style that "he prickt the fourth finger of her right hand, between the middle and upper joynt (where the sign at the Examination remained)"; of Alice Duke, that "the Devil prickt the fourth finger of her right hand between the middle and upper joynt (where the mark is yet to be seen)"; and of Christian Green, that "the Man in black prickt the fourth finger of her Right-hand between the middle and upper joints, where the sign yet remains."§ Annabil Stuart confessed at Paisley in 1678 "that the Devil took her by the Hand and nipped her Arm, which continued sore for half an hour."|| At Borrowstowness the Devil took Margaret Pringle "by the right hand, whereby it was grievously pained, but having it touched of new again, it immediately became whole."¶ Of the Renfrewshire witches in 1696, little Thomas Lindsay received "a Nip on the Neck which continued sore for Ten days"; and the Devil gave John Reid "a Bite or Nip in the Loyn, which he found painfull for a Fortnight."** One of the latest of the Scotch witches, the "young lass" Isobel Adams, at Pittenweem in 1704, confessed that the Devil "put his mark in her flesh which was very painful."††

The other form of the Devil's mark was the "little Teat." It occurred on various parts of the body; was said to secrete milk and to give suck to the familiars, both human and animal, and was sometimes cut off by the witch before being searched. The descriptions of the "teat" point to its being that natural phenomenon, the supernumerary nipple. Cases of polymastia, or supernumerary breasts, and of polythelia, or supernumerary nipples, are constantly recorded by modern medical observers. "These accessory structures are usually situated on the chest wall, the upper part of the abdominal wall, or in the axillæ, but they have been met with on the shoulder, the buttock, the thigh, and other extraordinary positions. As a rule they are functionless."‡‡ Polythelia occurs in both sexes; according to Bruce, "of 315 individuals taken indiscriminately and in succession, 7·619 per cent. presented supernumerary nipple; 9·11 per cent. of 207 men examined in succession presented supernumerary nipple; and 4·807 per cent. of 104 women." He concludes that, "according to the present observations at least, supernumerary nipples occur much more frequently in the male than in the female."§§ Cameron tabulates the positions of the supernumerary nipple in 105 cases: "96 were situated in thorax, 5 in axilla, 2 in back, 1 on shoulder, 1 outside of thigh."|||

All writers on the subject agree that the phenomenon is of more common occurrence than is usually supposed, but that many cases pass unnoticed, unless well marked when in men, or causing discomfort by functioning when in women. This view is supported by the fact that, during the recent unparalleled opportunity for the physical examination of large numbers of men, many cases have been published in *The British Medical Journal* for 1917, as occurring among recruits for the

* Kinloch and Baxter: *Reliquiæ Antiquæ Scot.*, pp. 124-6.

† Bourignon: *La Vie Extérieure*, p. 223.

‡ Sharpe: *Historical Account*, p. 132.

§ Glanvil: *Sadducismus Triumphatus*. II, p. 136.

|| *Id ib.*, p. 291.

¶ *Scots Magazine*, 1814, p. 201. Spelling modernised.

** *Narrative of the Sufferings of a Young Girl*, p. xli.

†† Sinclair: *Satan's Invisible World*, p. lxxxix.

‡‡ Thompson and Miles: *Manual of Surgery*, II, p. 341.

§§ Mitchell Bruce: *Journal of Anatomy*, XIII, pp. 438, 447.

||| Cameron, *id.* XIII, p. 153.

army. The supernumerary nipple is usually very much smaller than the normal; like the normal it is a modification of cutaneous tissue and is not attached to muscular tissue; its removal is a simple operation, in fact it would be quite possible for an unskilled operator to cut it off with a sharp knife. In women the supernumerary nipple is observed to increase at the time of the periods; in some cases during lactation sufficient milk is secreted as to make it a matter of indifference whether the child is suckled at the normal nipples or at the supernumerary one. In cases of polymastia, the nipple is not always formed; the milk, when secreted, issuing from a small opening. Though the nipple is congenital, the supernumerary breast may develop, or, at any rate, become noticeable later; the theory being that the ducts carrying the secretion from the supernumerary to the normal breast become blocked in some way, and that the milk is thus exuded through the pore of the supernumerary breast. The change in the case quoted by Cameron, as well as in the case of the witch Rose Cullender seems to have been caused by a strain.

Making allowance for the unscientific language of the recorders of the witch trials, it will be seen that the descriptions of the "witch pap," or "little Teat," exactly coincide with these anatomical facts. I give the evidence below, the trials being in chronological order. It will be observed that the cases are from England and New England only; if the phenomena of polymastia or polythelia occurred in France and Scotland, there are no records of the fact in the witch trials of those countries.*

Alice Gooderidge and her mother, Elizabeth Wright, of Stapenhill, near Burton-on-Trent, were tried in 1597: "The old woman they stript, and found behind her "right sholder a thing much like the udder of an ewe that giueth sucke with two "teates, like vnto two great wartes, the one behinde vnder her armehole, the other "a handfull off towards the top of her shoulder . . . being demanded how long "she had those teates, she aunswered she was borne so. Then did they search "Alice Gooderidge, and found vpon her belly, a hole of the bignesse of two pence, "fresh and bloody, as though some great wart had been cut off the place."†

The witch of Edmonton was tried in 1611: "The Bench commanded three "women to search the body of Elizabeth Sawyer. They all three said, that they "a little about the Fundiment of Elizabeth Sawyer found a thing like a Teate the "bignesse of the little finger, and the length of half a finger, which was branched "at the top like a teate, and seemed as though one had sucked it, and that the "bottom thereof was blew, and the top of it was redde."‡

The greatest number of cases recorded in one place is in Essex during the trials before Sir Matthew Hale in 1645: Anne Leech said that her "imps did usually suck "those teats which were found about the privie parts of her body. . . . [Two "women searched Mary Greenleife], and found that the said Mary had bigges or "teats in her secret parts, not like emerods, nor in those places where women use "to be troubled with them. The examinant, being asked how she came by those "teats which were discovered in her secret parts, she saith she knows not unlesse "she was born with them: but she never knew she had any such untill this "time. . . . [A woman searched Margaret Moone], she found three long teats "or bigges in her secret parts, which seemed to have been lately sucked; and that "they were not like pyles, for this informant knows well what they are, having "been troubled with them herself. Upon the searching of her daughters, this in- "formant found that two of them had biggs in their privy parts as the said Margaret

* The geographical distribution of certain customs has not been worked out at all. It is worth noting, however, that the sucking familiar is peculiar to England, the change of name on admission is peculiar to Scotland, and the Devil in the form of a goat is peculiar to France.

† *Also Goodridge*, pp. 8, 9.

‡ *Wonderfull discoverie of Elizabeth Sawyer*.

" their mother had. . . . She with some other women were required to search Sarah Hating, the wife of William Hating; Elizabeth Harvy widow, and Marian Hocket widow, and upon her said search (being a midwife) found such marks or biggs, that she never saw in other women: for Sarah Hating had foure teats or bigges in those parts almost an inch long, and as bigge as the informant's little finger: That the said Elizabeth Harvy had three such biggs, and about the same scantling: And that the said Marian Hocket had no such bigges; but was found in the same parts not like other honest women. Sarah Barton, sister of the said Marian Hocket (also suspected of being a witch) said the said Marian had cut off her bigs, whereby she might have been more suspected to have been a witch, and laid plaisters to those places."* "Another Evidence deposed that she once heard the said Margaret [Landish] say, that her Imps did usually suck two Teats near the privy parts."†

Among the Huntingdonshire witches in 1646 was John Clarke, junior, a labourer of Keiston. John Browne, a tailor at Raunce, deposed that he met Clarke on the road; Clarke "said he was in haste; for his Father and Mother were accused for Witches, and that he himselfe had been searched; and this Informant answered, and so have I. Then Clarke asked this Informant, whether any thing were found about him or not? he (this Informant) answered, that they said there were marks: Clarke said againe, had you no more wit but to have your marks found? I cut off mine three dayes before I was searched."‡

A man-witch about 1649 said that "upon his compact with the Devil, he received a flesh brand, or mark upon his side, which gave suck to two familiars."||

The Salisbury witch, Anne Bodenham, tried in 1653: "Women searched the Witch in the Gaol, and they delivered their oaths at the Assises, that they found on her shoulder a certain mark or Teat, about the length and bignesse of the Niple of a Woman's breast, and hollow and soft as a Niple, with a hole on the top of it: And searching further, they likewise found in her secret place another Teat, soft, and like the former on her shoulder."§

At St. Albans, about 1660, there was a man-witch, who "had like a Breast on his side."¶

In the same year at Kidderminster a widow, her two daughters, and a man were brought to trial; "the man had five teats, the mother three, the eldest daughter one. When they went to search the woman, none were visible; one advised to lay them on their backs, and keep open their mouths, and they would appear, and so they presently appeared in sight."** Alice Huson, of Burton Agnes, Yorks, in 1664, said: "I have, I confess, a Witch-pap, which is sucked by the Unclean Spirit."††

Abre Grinset, of Dunwich, Suffolk, in 1665: "The Devil did appear in the form of a Pretty handsom Young Man first, and since Appeareth to her in the form of a blackish Gray Cat or Kitling, that it sucketh of a Tett (which Searchers since saw in the place She mentioned)."‡‡ Rose Cullender, a Suffolk witch also tried in 1665: "The searchers [six women] began at her head, and so stript her naked, and in the lower part of her belly they found a thing like a teat of an inch long, they questioned her about it, and she said, that she had got

* Howell, IV, 838, 843, 849, 850.

† *Tryalls of Four Notorious Witches at Worcester*, p. 2. The place is wrongly given; it should be Essex, not Worcester.

‡ Davenport: *Witches of Huntingdonshire*, p. 15.

|| Gerish: *The Devil's Delusions*, p. 12.

§ Bower: *Dr. Lamb Revived*, p. 28.

¶ Gerish: *Relation of Mary Hall*, p. 24.

** Howell, IV, 827 note.

†† Hale, p. 58.

‡‡ Petto: *A Faithful Narrative*, p. 18.

" a strain by carrying of water which caused that excrescence. But upon narrower search, they found in her privy parts three more excrescencies or teats, but smaller than the former: this deponent farther saith, that in the long teat at the end thereof there was a little hole, and it appeared unto them as if it had been lately sucked, and upon the straining of it there issued out white milky matter."*

Temperance Lloyd, a Devonshire witch, tried in 1682: "Upon search of her body, this informant did find in her secret parts, two teats hanging nigh together like unto a piece of flesh that a child had suckt. And each of the said teats was about an inch in length."† Bridget Bishop, tried at Salem in 1692: "A Jury of Women found a preternatural Teat upon her Body: But upon a second search, within 3 or 4 hours, there was no such thing to be seen."‡ Elizabeth Horner, another Devon witch, in 1696: "Had something like a Nipple on her Shoulder, which the Children [who gave evidence] said was sucked by a Toad."§

Widow Coman, an Essex witch, died in 1699: "Upon her death I requested Becke the midwife to search her body in the presence of some sober women, which she did and assured me that she never saw the like in her life that her fundament was open like a mouse-hole and that in it were two long bigges out of which being pressed issued blood that they were neither piles nor enrods for she knew both but excrescencies like two biggs with nipples which seemed as if they had been frequently sucked."|| Elinor Shaw and Mary Phillips, of Northamptonshire, in 1704: "The infernal Imps did Nightly suck each of them a large Teat, or pieces of red Flesh in their privy parts."¶ M. A. MURRAY.

Obituary.

Haddon.

H. W. Fischer. By A. C. Haddon, Sc.D., F.R.S.

82

Hendrik Willem Fischer was born in Leyden on June 21st, 1864, and died there on March 7th, 1918. From 1884 to 1904 he served as a lieutenant and captain in the Military Engineer Corps in the Netherlands East Indies, but his health broke down, and he was discharged honourably out of the army. For his services in organising the defences of West Java he was appointed "Ridder in de Orde van Oranje Nassau." During his residence abroad he acquired proficiency in the Javanese and Malay languages, and on his return to Leyden he studied Battak and other East Indian languages under the professors in the University of Leyden. Having perfected himself in the literature of the ethnography of the Netherlands Indies, he volunteered, in 1906, to work in the State Museum of Ethnography, and on January 1st, 1914, was permanently appointed as conservator of the museum, the duties of which office he had fulfilled for several years. He has made for himself an enduring reputation in the compilation of most excellent monographic volumes in the *Katalog des Ethnographischen Reichsmuseums*, dealing with the ethnography of Sumatra and neighbouring islands. Of these Vols. IV, VI, VIII, X, and XII have been published. Vol. XIV is ready for the press, as is part of Vol. XVI. He wrote many articles on Indonesian ethnography in the *Inter. Arch. f. Ethnogr.*, of which the following may be noted: XVII, 222;

* Howell, VI, 696.

† *Id.*, VIII, 1022.

‡ Mather: *Wonders of the Invisible World*, p. 137.

§ Hutchinson: *Historical Essay*, p. 62.

|| "Narrative of Rev. James Boys, rector of Great Coggeshall." In Gilbert, *Witchcraft in Essex*, p. 6.

¶ *Witches of Northamptonshire*.

XVIII, 85, 132; XX, 1, 15, 250; XXI, 99; and he contributed an article, "Een Batakasche Bybel," to the Batak volume of the *Tydschrift Nederlandia*, 1909. An interesting lecture on the art of building in Indonesia was published in the *Tydschrift de Bouwwereld* in 1915.

Fischer was also an authority on the ethnography of New Guinea. His chief papers are also in the *Inter. Arch. f. Ethnogr.*: XVIII, 179; XXII, 230. Of especial value are his "Ethnographica von den Pësëchëm" and "Ethnographia aus Süd- und "Südwest-Neu-Guinea," Parts 1 and 2 of Vol. VII of the great work, *Nova Guinea*, published by the Maatschappij voor Natuurkundig onderzoek der Nederlandsche Koloniën. He has written many articles for Dutch encyclopædias. A most important article on Indonesia would have been published in the *Illustrierte Volkerkunde* (Dresden), had it not been stopped by the war. From the foregoing imperfect list of his writings it will be seen that Fischer was an indefatigable worker, but all his work is characterised by careful accuracy, wealth of knowledge, and a mastery of literature. Not only was he a scholar but he also accomplished very much for his native town, at first as a town councillor and afterwards as sheriff.

In April, 1914, J. W. Layard and I visited the Leyden Museum when preparing our "Report on the Ethnographical Collections from the Utakwa River "made by A. F. R. Wollaston," and we received great kindness from Fischer, who devoted much time to us and placed his unrivalled knowledge of the ethnography of Western Netherlands, New Guinea, at our disposal. He facilitated our work in every way, and proved himself a most cheery colleague, both in the museum and in his own home, where he lived with his sister. Since then he has helped me whenever I had occasion to write to him. His death is keenly felt by all who knew him, but more particularly by his friend, Dr. H. H. Juynboll, Director of the Leyden Museum, to whom I am indebted for the foregoing information.

ALFRED C. HADDON.

REVIEWS.

Africa: Agriculture.

Husbandry in the Congo.

Through the courtesy of the Belgian Minister of Colonies I have received Vols. VI, VII, and VIII of *The Bulletin Agricole du Congo Belge*, which, though principally intended for planters and agriculturists, contains a considerable amount of matter of interest to the anthropologist.

In Vol. VI Monsieur Tharin gives an account of some native modes of agriculture. He first deals with the region of Stanley Falls, which is of less interest to us, as its methods are mostly copied from those introduced by the Arabs during their occupation of these parts. He insists on the agricultural advantages derived by the natives from the Arab occupation, especially through the introduction of rice, indigo, millet, sesame, etc., but I believe he is mistaken in attributing to it the introduction of ground-nuts, tobacco, and beans, though it may be responsible for improvements in the culture of these plants. Rice is the most important product; it is eaten in various forms; simply boiled in Indian fashion (wali), boiled till it forms a sort of thick soup (mashende ya mchere), green rice slightly roasted and squashed (pepeta za mpunga), and mainly made into hard cakes, sweetened with honey or cane syrup (etumbola). Sesame, which is often planted in the rice fields, is only used for the production of oil.

South of Stanley Falls the principal food plant is the banana, which forms the staple food of the Mabila and Bakumu, Baranga, and Mituku inhabiting these regions. The natives distinguish about thirty varieties, but only five or six are cultivated to

any extent. Bananas are eaten fresh, dried and made into flour, and an intoxicating beverage is made of the ripe fruit, which is cut into pieces and then covered with water left to ferment. After eighteen hours a mild drink, "women's wine," is obtained; if left to ferment twice as long the beverage loses its sweetness, but gains in alcoholic strength, and is then fit for men. Though prohibited by law, alcohol is still distilled clandestinely in primitive stills. The banana is propagated from shoots; these are stripped and dried in the sun, then they are put into a heap, where they remain for some weeks before they are planted, as it is considered that should they be transplanted without these precautions they would rot, or, at any rate, grow less vigorously. The young plants are frequently planted in the fresh clearings before the trees which have been cut down are burnt; a month later the fire is set to these, and the flames do not only not harm the young plants, but are said to accelerate the production of the fruit by a month.

Cassava is rarely planted, as the huge herds of wild pigs and wart-hogs very rarely permit of the crops being gathered by the farmer; they are capable of destroying a "shamba" in one night. The little that is produced is eaten fresh by the Mabila.

The wild silk-worm (*anaphe infracta*) abounds, but is only used as an article of diet. The *tephrosia vogelii* (bobaka) is cultivated near the huts, and is used for fishing in the lagunes when the waters are low. The leaves and flowers are collected early in the morning, and at once crushed in a mortar into a green paste. The fisherman places himself where the current enters the lagoon and immerses the paste within a wicker basket, stirring it continually. A quarter of an hour later the poison produces its stupefying effect, and fish begin to float on the surface, when the fisherman and his friends simply collect them in baskets. The small fry and some species of salmonides appear first, while bigger fish do not float till about three quarters of an hour after the poison has been deposited; catfish and lampreys seem to be less susceptible than other fish.

The *raphia vinifera*, which used to be cultivated for its fibre before the introduction of trade cloth, is now only used for the production of palm wine, which forms an important part of trade between the Babole of the interior and the Lokele on the river.

Rice is reaped with the knife, and M. Tharin has calculated that this process requires twenty times the time of cutting with the scythe. Certain tribes, like the Bakumu, Wapinga, Waturu, and Walengola, cultivate rice to a great extent, yet do not eat it, and consider it simply as an article of commerce.

The Bambole plant yams to a considerable extent. After clearing the ground, bits of the yam (not specially preserved for the purpose but collected in an old field) are planted; as soon as the young shoots show, bananas and cassava are planted between them, and two months later any free spot is sown with rice.

In the region of Kirundu the sugar cane receives special attention and syrup, called asali, is prepared from it in the following way: the cane is cut and brought to the village where it is passed through a crushing mill. This is composed of two horizontal wooden cylinders fixed on joists firmly planted into the soil; the cylinders are provided with longitudinal flutings and are distant between 1 and 1½ cm. from each other. One of them, generally the uppermost, is revolved by means of peg-cams by one man, while another presents the cane and twists it during its passage through the mill; the extracted fluid is collected in a jar. This is then boiled for a considerable time, carefully skimmed at frequent intervals, and when it has acquired sufficient density, preserved in bottles. The product resembles honey, is light brown, and, if sufficiently long preserved, crystallises partly, and is then called asali guru. It finds a ready market among the Arabs and their dependants.

On p. 184 M. Tharin mentions various plantations of elais by certain chiefs, and yet he says on p. 185 that the natives practically never cultivate this profitable tree; I assume that the cultivation has been neglected within the last few years. The oil is extracted only from the outer covering of the cherry while the kernels are thrown away. When the clusters have been brought to the village they are kept for two or three days, and thus become more or less rancid; then the cherries are detached by the women, put into big jars, covered with water and boiled for ten minutes. The water having been sieved off, the kernels are extracted and the fruit is crushed into a pulp in a mortar. The pulp is then put into water, squeezed for some time till all the fat matter is extracted from the fibre. The oily water is energetically beaten, and finally the oil is skimmed from the surface. It is now submitted to a gentle heat which dissolves the fat particles, while the impurities sink to the bottom; after it has been decanted several times the oil is ready for preservation. Oil thus prepared is called Litula, and is more valuable than that obtained by heating and pressure. The unpurified oil is called Mawese.

Regions of Kirundu and Lokandu. There are two kinds of granaries: rectangular buildings on piles, made of mud, divided into two or three compartments with sliding doors, and simpler ones, cylindric in shape, also on piles, and covered with a conical thatched roof; these latter have no door. To get at the produce the whole roof has to be lifted, which, to prevent its being blown away by the wind, is weighted with logs.

At Lokandu oil is also produced from the kernels of five different kinds of pumpkins. The grains are lightly grilled, crushed in a mortar, and by the slow addition of small quantities of boiling water formed into a dark paste; this is then thrown into boiling water where it forms a thick mass on which the oil floats after some further boiling; it is skimmed and passed through a tight sieve made of thin strips of cane and finally left for several days to settle, after which it is decanted. By keeping the oil for some time in the dark it loses its dark colour and becomes light yellow.

The region of Nyangwe has a great reputation for its tobacco. The young plant is transplanted when it has developed three to five leaves, and shaded with a banana leaf; when it attains a height of 3 feet the apex is pinched off. The leaves are considered ripe for gathering when they begin to crinkle, get covered with yellow spots and are lightly parched; the whole plants are then cut off and are left for an hour in the sun to fade. Subsequently they are piled 4 to 8 inches high, covered with leaves and weighted; thus they ferment during three days. On the fourth they are put for an hour on the roof of the house to dry in the sun; then they are piled up again and left to ferment for a day or two; after this second fermentation the leaves are easily detached from the stem, laid out in a row on a bed of grass and exposed to the full heat of the sun for five or eight days until the central nerve is completely dry; at night they are taken into the house. The tobacco is now considered ready for packing: the leaves are attached by their petioles and made into twisted packets of 20, 30, or 100, tied up and covered with dried banana leaves. In 1901, when I passed in that region, tobacco was still a currency; this is, however, not the case to-day, as M. Tharin makes no mention of the fact.

The natives of Kasongo (I suppose this refers to the Manyema, but it may be the Bakusu) retard the sowing of their rice by two months so that, they say, the grain should be ripe in March or in April, when the most destructive birds are hatching their eggs and have little time for depredation.

In Vol. VII Monsieur G. de Greef deals with native agriculture on the upper course of the Ituri River and on the shores of Lake Albert. The tribes concerned are:—

(1) The "Bahoema" (this surely stands for Bahima, whom Stanley and Speke used to call "Huma"), an essentially pastoral people; who claim to have immigrated from Uganda, having come to that country from the north. They state that they left Uganda because of an epidemic among their cattle; Monsieur de Greef thinks that the migration must have taken place one or two centuries ago, but I should think that either of these dates is based on pure supposition. They live exclusively on the produce of their cattle—butter, milk, cheese (curds?), meat, and blood; bleeding is practised by piercing the jugular vein with an arrow, or by cupping. The tilling of the soil they consider degrading. They are tall, many individuals being over two metres high; the legs are long and thin; shoulders narrow; their features are what one is accustomed to call Hamitic. They do not form villages, but their huts, connected by narrow paths, are spread over their pastures. As for dress, those in contact with the European imitate the Arab garb.

(2) The Walendu form the majority of the population, though the influence of the conquering Bahoema is by far the more considerable; as a matter of fact the latter kept the former for a considerable time in a state of vassalage, and in certain parts, as in the region of Blukwa, this condition still persists. Cattle-lifting between the two tribes forms the constant cause of wars. The Walendu possess not only great herds, but they are also excellent agriculturists; except for the great chiefs, whose habitation is surrounded by some of their retainers, their houses are equally spread out and isolated. However, in the northern part of their territory, which touches the Equatorial Forest, they possess considerable townships, in which their circular huts are disposed in two parallel rows. The men take an important share in the cultivation of their fields, where they grow maize, sorgho, sweet potatoes, &c.

(3) The Babira, a short, sturdy, and active people. Men and women file their teeth, and the latter distend their lips with the pelele; they attribute the origin of this habit to the slave trade, for girls thus disfigured were valueless to the Arabs. Women anoint themselves with castor oil mixed with red clay and scented with the extract of a creeper, smelling not unlike patchouli. This tribe is, next to the Walendu, the most numerous.

(4) The Banyari, a small but prolific tribe, inhabit the forest region, and are said to be part of the Mombuti.

(5) The Alulu, inhabitants of grass land, agriculturists, very hostile to the Europeans.

(6) The Mombisa.

(7) and (8) The Walese and Mombuti, forest tribes, who, besides being great hunters, cultivate bananas and maize. They are little known by the white man.

Monsieur de Greef describes the various modes of agriculture, though he does not always say what particular tribe practises them. The various implements are shown in illustrations, and the preparation and preservation of the different kinds of foods is given. The native industries are then described and illustrated. The principal ones are pottery, making of soap, baskets, ropes, mats, and salt, and the extraction and working of iron. The three kinds of cattle found in the region are described, and many interesting details concerning breeding, housing, diseases, &c., are given.

M. Lacomblez in Vol. VIII deals more in detail with the Babira of the same region. The clearing of the ground is done by all the men of the village; about 30 per cent. of the trees of the forest, by preference the loftiest, are left to stand so as to protect the plantation from the direct rays of the sun. When sufficient ground for the village has been cleared, this is divided among the inhabitants according to their respective wants, the boundaries being marked with fallen trees or vines. Now the women and children proceed to remove the remaining

smaller vegetation by hoe and by fire; this is not done at once on the whole allotment but only on that part of it which is immediately required for planting. The product belongs to the family which cultivated the land, a special field being reserved for the chief to the maintenance of which all the villagers contribute. Manure is never used, but the ground is left five to seven years fallow after each crop. The clearing is done at any time of the year, but by preference in the dry season so as to make sowing at once possible when the rains begin. The plantations are generally begun near the village but get further and further as more ground is required, to return again to their starting point when the first fields have sufficiently rested. For bananas, however, fresh ground is cleared every time. As the natives are all buried in their houses or near them, the village after a number of years becomes unhealthy and has to be transferred; two years before this is done a new site is chosen in the proximity of the old one (so as not to be too far from the plantation) and surrounded by a banana grove.

The various crops are not kept separate, and bananas, manioc, maize, yams, &c., are found in the same field. Besides these plantations near the village, the Babira, have some less important ones hidden in the forest or surrounded by swamps in case of emergencies like war or the arrival of the tax collector.

A lot of pilfering goes on when the crop ripens; if the guilty person is an inhabitant of the village this is a thing of no importance; should he, however, be a stranger, he will be severely beaten and mulcted in heavy fines. But the greatest damage is done by elephants, pigs, monkeys, and buffaloes. M. Lacomblez adds civets to this list, but this must be a mistake.

The crops are gathered by women and by children and it seems to be the habit to present the first fruit, like the first bunch of bananas, the first beans, etc., of every field to the chief. The quantity of the crop is generally not more than what is required for the sustenance of the owner and his family and there is rarely a surplus for trade.

M. Lacomblez proceeds to describe fully the cultivation of various plants; I should think that it is by mistake that he says that bananas are propagated by cuttings (*boutures*), especially as he later on refers to shoots (*rejets*). It is noteworthy that tobacco is raised in a nursery and transplanted when about five leaves have developed, also that when the plant has attained a certain height the apex is pinched off.* This is not wasted but used for the manufacture of snuff; after having dried and fermented for a few days the tender leaves are crushed in a mortar and the powder thus obtained is sieved through some linen; the part which does not go through is thrown away. The powder is then wetted with a decoction of banana ashes which is said to improve its flavour.

The only domestic animals kept are goats, sheep, and fowls; they serve mostly as currency and only such that die of a natural death are consumed.

E. TORDAY.

South Africa: Linguistics.

McLaren.

A Concise Kaffir-English Dictionary. By J. McLaren, M.A. Longmans, Green and Co., London, &c., 1915.

84.

This companion to a *Grammar of the Kaffir Language*, by the same author, is intended for the use of Europeans who may desire to become acquainted with the language of the Bantu in the eastern portion of the Cape Province of the South African Union. Such a work has long been a desideratum, not because of any lack of lexicological material for the study of the language, but rather because that

* M. Amrhyn in another paper mentions that at Kasongo tobacco plants are manured with sheep's dung.

material is too cumbrous and elaborate for the purposes of the general student. The author has endeavoured to give clear, concise, and accurate definitions of the most common words, and on the whole his plan seems to have been admirably carried out. The art of dictionary making is never an easy task, but a Bantu dictionary surpasses all others in difficulty of construction. If the extraordinary number of accretions to the root and the phonetic modifications only affected the final syllables, there would not be much difficulty, but the number and combinations of the initial syllables in Bantu words are an unfailing source of perplexity. Two examples given by the author will show the difficulty. A word appearing as *elusatsheni* must be sought for under the root *u-sapo*, whilst the ultimate root of the word *bangasemlanjeni* is to be found in *um-lambo* (a river), *bangasemlanjeni* "they are near the river," being *ba* (they), *nga* (near), *s* (euphonic between two vowels), *em* (locative form of prefix *um*), *eni* (for *veni*, the locative sign, causing the final labial in the root to become a palatal *lanj* instead of *lamb*).

The method of using the dictionary is explained in the preliminary part of the book. In this there is a condensed account of the sounds, accents, and tones of the language, with a summary of the grammar, and in the last section all the prefixed particles are tabulated.

The book appears adequate for all general purposes and can be recommended as a useful help to students and others who come into contact with the predominant native population of South Africa. In testing, one comes across a few omissions, e.g., *amanzi* (water) is not given with the adjective *manzi* (wet), and *anzi*, to which there is a cross-reference does not appear at all; in *iso*, *il* (eye), the reference to *il-Iso* should be *Ili-so*.

The value of the book will be increased by the Kaffir-English part promised by the author as a supplement. S. H. RAY.

Folklore.

Stanley.

Animal Folk Tales. By Anne A. Stanley. New York, Cincinnati, Chicago: American Book Company.

85

Although this volume bears the title of *Animal Folk Tales*, it must not be supposed that it is a collection of folklore relating to animals. The stories here collected are of purely literary origin, and bear very little resemblance to genuine folk tales. They are said in the preface to have been "adapted to class-room use," and possibly they may have been found satisfactory for that purpose, possibly not. All depends on the spirit in which folklore is or should be employed as an instrument of education. If it is to give some insight into the thoughts and ideas of primitive man, this purpose will not be served by taking the mere skeletons of tales and dressing them up in purely modern form.

M. L. D.

ANTHROPOLOGICAL NOTES.

Archæology in Mexico.

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The Mexican Government, through the Inspector of Monuments, Señor M. Gamio, has continued to do good and steady work in excavating the ancient sites. Recent accounts describe the narrow, arched tunnel which has been driven through 73 metres of the east side of the Pyramid of the Sun at Teotihuacan, a few feet above the base and towards the centre. Señor Batres had removed (about ten years ago) 15 metres in thickness of the outer shell of the pyramid, which had doubtless also lost much masonry in the early years after the Spanish Conquest. The present excavation has been through a solid mass of sun-dried adobe bricks. No successive layers of masonry nor outer coverings have appeared, as would have

been the case if the pyramid had been added to from time to time. The adobes are full of myriads of pottery fragments, plain and decorated, thus showing that the pyramid was erected on the extremely ancient site of a great and populous city, whose inhabitants had used decorated pottery in enormous quantities, so that the clay soil had become filled with potsherds. Señor Gamio is careful to preserve an equal bulk of adobe from each metre excavated in order to compare the embedded potsherds.

An interesting house with narrow, intricate passage-ways and many small rooms, has also been uncovered in the "Street of the Dead." This work is, unfortunately, now stopped for lack of means.

About ten years ago, human remains, with pottery, were found beneath the great flow of lava from the volcano of Ajusco, that comes down from the rim of the valley of Mexico to Coyoacan. The flow is possibly not much more than 400 years old. An entire charred skeleton has now been found about 3 feet beneath it, near San Angel; also other bones and skulls, which seem to indicate the site of an old burial-place. Rounded stones from the river-bed close by form a sort of pavement above, but this may have been a narrow paved pathway. A good deal of broken pottery has been also found and a few terra-cotta heads of the so-called archaic type. The skulls are small and comparatively modern.

Anthropology in the United States.

The first number (January-March 1918) of a new anthropological journal is **87** announced from Washington. The *American Journal of Anthropology* will be published quarterly, edited by Dr. Ales Hrdlicka, Curator of Physical Anthropology at the National Museum (where there is a vast store of skeletal material awaiting students), and the Committee on Anthropology of the National Research Council and other prominent anthropologists have promised their co-operation. The prospectus states that although physical anthropology is the most important branch of the science of man, it has been hitherto without adequate facilities for publication and without a journal of its own in the United States, a country especially rich in material. The *American Anthropologist* is devoted to anthropology in the widest sense, but its papers are given mainly to ethnology and archæology, though a limited space is available for somatological papers. Now that American Universities are giving more attention to physical anthropology than ever before, it is important that the instructors should be able to acquaint themselves with what is being done elsewhere. The population of the United States includes representatives of nearly every race and sub-race on the globe, and there are opportunities for study not to be neglected. It is hoped that sufficient support may be accorded to the new venture for the promoters to carry it on successfully. The annual subscription for foreign countries is \$5.50. Address, "Editor, American Journal of Physical Anthropology, Smithsonian Institution, Washington, D.C."

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(Donor indicated in parentheses.)

The Processes of History. By Frederick J. Teggart, Ph.D. $7\frac{3}{4} \times 5\frac{1}{4}$. 162 pp. Yale University Press. 5s. 6d. net. (Oxford University Press.)

A Guide to Sanchi. By Sir John Marshall, C.I.E., M.A. $8\frac{3}{4} \times 5\frac{3}{4}$. 152 pp. 15 Plates. Government Printing, Calcutta. 3s. 9d. (The Superintendent.)



AN AMERICAN DRAGON.

ORIGINAL ARTICLES.

North America: Pottery. With Plate L.

G. Elliot Smith.

An American Dragon. By G. Elliot Smith.

89

Among the remarkable collection of Maya pottery in the Liverpool Free Public Museums which Mr. Thomas Gann, M.R.C.S., obtained during the course of his excavations in the mounds of Northern Honduras,* there is a peculiarly interesting object (Plate L) which Mr. Gann does not mention or represent in his series of illustrations. Yet Dr. Joseph A. Clubb, the curator of the Liverpool Museums, who called my attention to the specimen and kindly obtained for me the accompanying photograph of it, tells me that it was found at Santa Rita along with the specimens described by Mr. Gann, to which it presents obvious affinities.

It represents an alligator or crocodile, and a human face protrudes between the jaws of the open mouth. The head of the beast is equipped with such inappropriate appendages as deer's horns, which, though stunted, strictly conform to the stereotyped American way of representing antlers.† To the surface of the skin a series of elliptical (and in some cases circular) pieces of clay have been applied. Like all the other objects in the collection, the model was in the form of a hollow vessel with a large round opening upon the animal's back.

The maximum length of the specimen in its present condition (two spines have been broken off the tip of the tail) is 34.6 cm.; the maximum breadth (across the arms) is 20.3 cm., and the maximum height is 13.3 cm., of which 3.9 cm. consists of the cylindrical tube upon the crocodile's back, the diameter of which is 8.9 cm. The fore limbs are provided with five toes and the hind limbs with four toes each. The antlers have three prongs. The human face is painted light blue, but the crocodile's palate is coloured brick red. Some of the elliptical elevations upon the creature show traces of blue paint. Bracelets and anklets are represented by series of hemispherical masses of clay.

The forms of several different animals are represented in the collection: tigers, turtles, sharks, as well as "alligators" (crocodiles), and human beings. Referring to "the alligator-like animal" (as well as its surrogates, the double-headed "alligator" and the turtle), Mr. Gann says: "it was intended to represent the Aztec *Cipactli*, a mythic animal at times taking the form of a swordfish, a shark, an "alligator or an iguana"; but somewhat rashly, as the following discussion will show, adds the speculation that "it symbolizes the earth, and as in other cases, is "often represented with a human head between the jaws to signify that all flesh "returns to its original earth, and to death." (Footnote to p. 684.)

This suggestion is very wide of the mark, for the human head in the mouth belongs to the Rain God *Chac* (*Tlaloc*) and the animal-form, or his skin-covering, was nothing more than his traditional *camouflage*.

The crocodile in Japan, Indonesia, and India is perhaps the commonest form of the *makara*, which we can regard as a larval form of the real dragon, and in India the direct descendant of the Babylonian "goat-fish," the Capricornus of the Zodiac. One of the most interesting features of the American *makara* we are now studying is that it is equipped with such distinctive features of the Chinese and Japanese dragon as deer's antlers. The spotted decoration of the body is of exceptional interest. I have already called attention to the fact that the elephant-headed god, the Maya *Chac* and the Aztec *Tlaloc*, was the American representative

* Thomas Gann: "Mounds in Northern Honduras," 19th Ann. Rep. Bureau of American Ethnology (1897-98), Part II. Washington, 1900, p. 661.

† E. Seler: "Die Tierbilder der mexikanischen und der Maya-Handschriften," Zeitsch. f. Ethnologie, Bd. 41, 1909, p. 414. G. G. MacCurdy: "A Study of Chiriquian Antiquities," Memoirs of the Connecticut Academy of Arts and Sciences, Vol. III, March 1911, p. 202, Fig. 342.

of the Vedic god *Indra*.* It was, in fact, a form of the Indian god somewhat modified by Cambodian and Indonesian, and especially locally by a variety of American influences.

In India, Indra had assumed many of the attributes of the gods Soma and Varuna, which were diversely specialised forms of the Babylonian Ea (Marduk) and the Egyptian Osiris (Horus): "In his aspect of Moon, 'the lord of stars,' [Soma] "has the antelope as his symbol. In fact, one of the names given to the Moon by "the early Indians was 'mr̥ga-piplu,' or marked like an antelope," in reference to the spotted appearance of the moon.† "The Sanskrit name for the fifth Nakshatra "or lunar mansion over which Soma presides is 'mr̥ga-sīras,' or the 'deer-headed.' "‡

Dr. Gladys Davis has collected the evidence in substantiation of the claim that the Phrygian Dionysos was derived from the early Aryan god Soma (Haoma), who came into being somewhere in the neighbourhood of the Gates of Zagros. He was, in fact, Ea (Marduk), who passed through the Gates and became specialised as a highland deity. Miss Davis mentions an Orphic fragment preserved by Macrobius which refers to the star-aspect of Dionysos, and "explains the significance of the "νέβρις or fawn-skin worn by the god and his followers." The dappled appearance of the skin is supposed to symbolise the star-strewn sky,§ and is further regarded by Orpheus as representing the connection of Dionysos with the sun. Here he tells how the god—

"First dons a robe like to its glittering rays
And bright as fire, then o'er his shoulder casts
The dappled fawn-skin garb of goodly width,
Dotted with countless circles to portray
The stars inlaid in Heaven's hallowed vault."

—(Macrobius, Sat. I, 18.)

But not only Soma and Dionysos, but also their American representative *Chac*, wore "the dappled fawn-skin dotted with countless circles to portray the stars" in the pottery figure we are considering. But why should a crocodile be spangled with the antelope's "countless circles"?

It must be remembered that at the time when Ea (Marduk) was passing into the northern highlands to become the Aryan Soma (Haoma) or his spotted antelope, his other *avatar*, represented by a monster compounded of Ea's fish and antelope—the so-called "goat-fish" or Capricornus—was also being carried to India, where it became the *makara*. Not only did the *makara* assume protean forms, such as the "goat-fish," "tiger-fish," and elephant-fish" among many others,|| but it

* *Nature*, January 27th, 1916.

† It was primarily due to a confusion of the attributes of the moon and the sky, the spotted appearance being originally a graphic representation of the star-spangled sky when the first deities were devised by man and the Great Mother was identified in turn with a cow and the moon. But the human mind displays an instinctive tendency to integrate even the most diverse incidents in its experience; no gap is too great to be bridged by this process; hence primitive man solved the problem of the Great Mother's apparently incompatible homologies by making "the cow jump over the moon" and become the sky. Hence the Great Mother and her cow-*avatar* were represented star-spangled, as the sow was in the Ægean (Schliemann, *Ilios*, p. 616), and the deer (antelope or rabbit) in Asia and America.

‡ Gladys Davis: *The Asiatic Dionysos*, 1914, pp. 202 and 203.

§ As the star-spangled skin of the Divine Cow Hathor (and perhaps also of the Mycenaean Pig) represents the sky.

|| See A. Cunningham: *Report Arch. Survey of India*, Vol. III, Plates IX and XXIX; and compare with William Hayes Ward, *Cylinder Seals of Western Asia*, p. 384, where the "goat fish" is shown as the vehicle of the Babylonian Ea, as the *makara* in India is the vehicle of Varuna.

also became confused with the crocodile and the *nāga*. The identification of the crocodile with the antelope-fish* provides the reason for embellishing the American *makara*, with the spots of the antelope. In India the *makara* is the vehicle of Varuna, and the god was also identified with the monster, as Soma was with the antelope. In America both gods and their respective symbols are merged together in the spotted *makara*, as sometimes occurs also in India.†

When the Babylonian cults made their influence felt, directly or indirectly, in Asia Minor and the Mediterranean area, the antelope of Ea was often replaced by the deer of Dionysos and Artemis. The horns of the dragon into which the "goat-fish" developed were transformed from those of an antelope into those of a deer by the time the dragon reached China and Japan.‡ It is possible, if not probable, that the idea of this composite monster (which certainly reached Eastern Asia from Babylonia) was transmitted to China by the overland route (*viâ* Turkestan, the Tian Shan line, past Lob Nor, to Shensi).

The influence of China and Japan in Indonesia in the early centuries of the Christian era was probably responsible for giving deer's horns to the *makara* (which Indonesia had acquired directly from India) while it was being conveyed east towards America. Hence the American dragon displays the results of a blending in Indonesia of the diversely specialised Indian and Chinese modifications of the original Babylonian antelope-fish of Ea (Marduk).

In a Japanese dragon-story, which was certainly inspired by certain Indonesian legends,§ the dragon has a crocodile-form and is called a *wani*. In these myths the *wani* may be the hero's vehicle, as the *makara* was Varuna's, or the hero or heroine of the tale may be transformed into a *wani*. The literature relating to these mythical crocodiles is discussed by Dr. M. W. de Visser.||

He quotes the following statement from Aston's *Shinto*: "There can be little doubt that the *wani* is really the Chinese dragon. It is frequently so represented in Japanese pictures. I have before me a print which shows Toyotama-hiko and his daughter with dragons' heads appearing over their human ones. This shows that he was conceived, not only as a Lord of Dragons, but as a dragon himself" (de Visser, p. 141). De Visser makes the following comment on Aston's statement: "We are here not so much on Chinese, as on Indian territory. . . . 'The dragon's heads appearing over the human one' form quite an Indian motive, transferred to China, and from there to Korea and Japan" (p. 142). The pottery figures from Honduras, as well as many statues from Central America, show that this conception spread, not only to Eastern Asia, but also across the Pacific to America. Among the many ways in which the *nāga* is represented in India, there is one in which the upper part of the god is shown as a human head with a snake's head above it. In Babylonia Ea was represented as a man wearing a fish's skin with the head above his own. The god and the animal whose skin he wore were identified the one with the other. In the Honduras figure, both the human figure and the crocodile represent the Rain God, *Chac*.

* In parts of Africa the dragon is an antelope (Frobenius, *The Voice of Africa*, 1913, Vol. II, p. 467, *inter alia*).

† Cunningham, *op. cit.*, Plate XXIX.

‡ It is not surprising to find the deer itself (as well as composite monsters) playing a considerable part in the mythology of America. Seler states: "Der Hirsch ist in hervorragendem Masse ein mythologisches Tier. Er repräsentiert das Heer der Sterne, die, vom Morgensterne gejagt, von Osten nach Westen getrieben werden."

§ F. W. K. Müller: "Mythe der Kei-Insulaner und Verwandter," *Zeitsch. f. Ethnologie*, Bd. XXV (1893), p. 533.

|| "The Dragon in China and Japan," *Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam*, Afd. Letterkunde, Deel XIII, No. 2, 1913, pp. 139-142.

That the *makara*-like whale-dragon of the Old World was transferred to America is also shown by the remarkable Maya story, translated by Juan Martínez Hernández,* in which the reference to a "female whale with alligator's feet" recalls the pictures on the Buddhist railing at Mathura (circa 70 B.C.—70 A.D.); whereas the exploits associated with this monster are equally definitely a travesty of Indra's famous achievement in overcoming the demon Vritra.

The world-wide stories of the whale-dragon have been collated by Frobenius.†

In his *Study of Chiriquian Antiquities*‡ MacCurdy gives an interesting account of a class of Chiriquian pottery which Holmes called "the alligator group," although, for the reasons clearly set forth by MacCurdy, the animal depicted was probably *Crocodylus Americanus*, var-*acutus*, and not the alligator (*Alligator punctulatus*), which has a shorter muzzle. In the ancient Mexican picture-writing also it was the crocodile that was figured as *cipactli* (*op. cit.*, p. 126).

MacCurdy is puzzled to explain "the appearance of a long crest that is attached to the back of the neck, the meaning of which is not clear" (p. 127). Comparison with the Honduras pottery suggests that this appendage is merely the vestigial remains of the deer's horns of the dragon, conventionalised in the characteristically Babylonian fashion as a single crook-like spur proceeding backwards above the neck (compare his figures 208 and 209, p. 127, with the dragon on the Ishtar Gate at Babylon—L. W. King's *History of Babylonia and Assyria*).

In some of the Honduras specimens the crocodile is given a second head, which is fixed to the end of its tail, in strict conformity with the principles of dragon-construction in the Old World.§

I do not think that MacCurdy's account of the mechanism of conventionalisation of the Chiriquian crocodile gives adequate recognition to the complexity of the process.

The essential factor in the conventionalisation has been the blending of several different conceptions. The design of the crocodile itself is already embellished with vestigial structures that reveal its origin in the Old World. To this is added the effects of the blending in Chiriqui with locally developed designs, as well as with those which have been introduced from abroad, not only in association with the *makara*, but also independently of it. I think the sagging of the body of the Chiriquian crocodile may have been the result of the use of animal forms for *metate*-designs described elsewhere in MacCurdy's report.¶

Every stage in the process of blending of the crocodile and the pot is seen in the Chiriquian series, and the completed stage is revealed in the Honduras specimen with which this note is especially concerned.

It is important to remember that the conception of the Great Mother as a water-pot, which was widely accepted in the Old World (in Egypt,¶ the Mediterranean area,** Western Europe,†† India,‡‡ Indonesia, Eastern Asia, and Oceania§§),

* "La Creación del Mundo Segun los Mayas," Páginas Inéditas del MS. De Chumayel, *International Congress of Americanists, Proceedings of the XVIII Session*, London, 1912, p. 164.

† *Das Zeitalter des Sonnengottes*, Berlin, 1904.

‡ George Grant MacCurdy: *Memoirs of the Connecticut Academy of Arts and Sciences*, Vol. III, March, 1911, p. 125, *et seq.*

§ See Budge's *Gods of the Egyptians*, Vol. I.

¶ See Plate III.

¶ F. Ll. Griffith: "A Collection of Hieroglyphics," *Arch. Survey of Egypt*, 1898, p. 3; also §§.

** Schliemann, *op. cit.*; also §§.

†† The Holy Grail story; also §§.

‡‡ Bishop Whitehead: "The Village Deities of Southern India," *Madras Government Museum Bulletin*, Vol. V, No. 3, 1907, where the seven goddesses are represented by seven pots.

§§ In my *Evolution of the Dragon* I have discussed the origin of the Mother Pot.

was blended in the Ægean area with another of her forms, the octopus; and in the so-called "owl-shaped vases" found in such profusion by Schliemann, we find the "Mother Pot" represented as a jar in the form of a highly conventionalised octopus which is also a woman, whose pudendum is sometimes embellished with a swastika or a volute, two other symbols which Houssay claims as conventionalisations of the octopus.* Similar elements of culture were being mingled in Chiriqui; and it is interesting to compare the compound formed by the American designers of essentially the same ingredients as their Minoan and Mycenaean forerunners used to make their cultural mixture several centuries earlier. For the Chiriquians not only received the suggestions of making such objects from the Old World, but also learned the principles of mingling the motives which inspired them.

I have already referred to the widespread conception of the earliest goddess as a bowl. In conformity with the confusion between the moon-goddess of Egypt and the moon-gods of Aryan India and Persia, it is not surprising to find the god Soma represented as a golden bowl.† The moon itself was regarded in India as a bowl with a spotted antelope or rabbit in it,‡ or as an animal-shaped vessel.

This Indian conception of the moon also spread to China. Ancient Chinese embroideries represent the moon as a hare pounding medicinal herbs in a mortar under a cassia tree.§ In this form the hare is probably the representative of the Egyptian Hathor, whose priestesses pounded the materials for the elixir of life.

This idea also was carried across the Pacific in Pre-Columbian times. In ancient Mexican codices the moon is represented as a bowl in which a hare or rabbit, spotted in the characteristic Indian way, is pounding the Agave plant to make the sacred drink, *pulque*.

In Mexico the Pulque God was in many respects like the Indian Soma, or the Greek Dionysos; and there is no doubt that the American god was derived from the Vedic drink-god. The Pulque God was not only the moon, but was also known as the "Four Hundred Rabbits."||

Kunike reproduces a remarkable "Mexican Saga" (Sabagun VII, 2), which explains the present diminution of the moon's brightness by the statement that the gods flung a rabbit in the face of the moon,¶ which originally shone as brilliantly

* Frédéric Houssay: "Les Theories de la Genèse à Mycènes et le sens zoologique de certains symboles du culte d'Aphrodite," *Revue Archéologique*, 3rd Series, XXVI, 1895, p. 24.

† Davis, *op. cit.*, p. 239.

‡ In another Indian legend a celestial being, an emanation of Brahma, brings down from heaven in a golden vessel the food of the gods—pyassa, compounded of rice and milk, both of them "givers of life." Wives who eat this fertilising mixture give birth to sons who are incarnations of Vishnu, and overcome the king of the demons.

§ De Gubernatis, *Myth. des Plantes*, Tome II, p. 50; John Steele, *The I-Li*, London, 1917, represents (Vol. I, plate facing p. 144) a deer-shaped tally-holder from China, with striking analogies to the Honduras pot.

|| Seler: *Codex Vaticanus*, Vol. I., p. 167. In his account of this god, Seler quotes from an ancient document describing how four male demons killed the Great Mother, the mother of all the gods and demons, and thereby founded the institution of human sacrifice. They took her heart out and presented it to the sun . . . in this way giving him eternal life, and that, if he did not die, all persons drinking wine must die; but the death of this Ometochtli was like the sleep of one drunk, and afterwards he recovered and became fresh and well. This is a curious blend of the Egyptian story of the Destruction of Mankind and the Babylonian legend of Tiamat.

¶ Elsewhere I have referred to the remarkable practice of the Pyramid Age in Egypt of offering the fore-limb torn from a living calf as a blood offering, and of the survival of this custom in a modified form among the Dravidian people of India at the present day. In Babylonia Eabani is said to have torn a limb from the Celestial Urus and to have thrown it in the face of Ishtar (Maspero, *Dawn of Civilisation*, p. 582). Is the story of the flinging of the rabbit in the face of the moon (the Great Mother) a garbled version of this ancient legend?

as the sun. He states that the "Sanskrit Indians" have the same legend, and that the Japanese and the Indians of Central Brazil refer to the rabbit in the moon.*

I have already referred to the confusion of sex that occurred when many attributes of the Egyptian female moon-god were acquired by the Indian drink-god Soma. A remarkable illustration of this confusion is provided by the Mexican god Xipe, who carries the characteristic sistrum of Hathor.† Kunike says: "Das Kaninchen ist also der Mond und die Pulquegötter sind Mondgötter, auch sie hängen wie Xipe (als Mond-und Vegetationsgott) mit den Ideen der Lebensmittelfülle unmittelbar zusammen" (p. 927).

As in Egypt, so also in Mexico, the moon is represented as an eye. When represented as a bowl the latter may simply be a part of the conventional eye-design (see Kunike, Fig. 9, p. 926); or it may be a real bowl containing a rabbit, a sea-shell or a flint knife, three of the diverse forms which the Great Mother assumes in the Old World, the rabbit (or its surrogates, the antelope, the gazelle, or the deer) being her good or evil *avatar*, the shell her original form, and the flint-knife also an animate form of the goddess as well as the original thunder-weapon. Thus we find upon the shores of the New World a confused jumble of beliefs and fancies that began to drift across the Pacific from the Old World more than twenty centuries ago. As we examine the pictures in the ancient Maya and Aztec codices, a never-ending feeling of amazement is awakened as one after another almost every incident in the mythology of India, Babylonia, and Egypt, the legends of their gods and demons, the history of their dragons and thunder-weapons, make their appearance, flung together in kaleidoscopic confusion, and elaborated with childish directness and barbaric luxuriance of embellishment, into new combinations and distinctively American designs.

No one who conscientiously studies the mythology of the Old World and appreciates the fortuitous circumstances which determined the arbitrary forms assumed by many of the beliefs and ideas can refuse to admit that the confused mosaic of the identical elements of culture in America must have come from the other side of the Pacific, and for the most part received the impress of Indian civilisation before the fragments were rearranged and built up again into a new pattern in Mexico and Central America.

In my book of Rylands lectures on "The Evolution of the Dragon," I have discussed at greater length the general problems mentioned here. It was only after the relevant chapter of the book was in printed proof that I learned of the existence of this pottery figure in Liverpool, which affords a most remarkable demonstration of the existence of such a mythical creature as the development of my argument had previously led me to expect to find in America.

G. ELLIOT SMITH.

Africa, East.

Crossland.

Notes on the East African Outrigger Canoe. By Cyril Crossland.

90

The following notes are taken from a letter from Cyril Crossland to Professor Seligman (June, 1918) by way of comment on my paper on "The Outrigger Canoe of East Africa" (MAN, 1918, 29).—A. C. Haddon.

"I am inclined to think that Mr. Montgomery's observation that the 'hori' is only used in calm weather, and inside the reef, is due to its not being adapted for long, swift journeys, as the *galawa* is. I believe our *huris* come from India *via* Arabia. Zanzibar ones may also, but I remember watching one being made [in Zanzibar?] from the trunk of a mango tree. Our *huris* get patched and repatched

* Hugo Kunike: "Einige grundsätzliche Bemerkungen über Sonne, Mond und Sterne in alten Mexiko," *Zeitschrift für Ethnologie*, Bd. 43, 1911, p. 926.

† Joyce: *Mexican Archaeology*, p. 40.

till some of them are all planks but the bow and stern. They must attain a great age before being finally abandoned.

"The shape of the *galawa* is distinctly different to that of the Red Sea dug-out *huri*, or of any canoe not fitted with outriggers, being much higher and narrower. The *galawa* without its outriggers would be useless; it is not merely a *huri* with outriggers attached. Sailing in a fresh breeze at Zanzibar is a lively business; they go like a fast motor launch. One member of the crew steers; the other stands on the windward boom, and I have seen this man moving to and fro in the most active and clever way to keep the balance as the force of the wind varied.

"A number of the names of parts of the *galawa* are Arabic. I had in a ragis (half Arabian) and went over the names with him. Those I do not note he knew nothing of, as one would expect, they mostly being obviously not Arabic. Paddle, *kafi* = Arabic *kāfā*, the blade of a paddle; rudder, *sukāni* = *sukwan*; tiller, *kana* = *kāna*; wash-strake, *daraba* = *darāba* (this addition is optional to either *huri* or *sambūk*; some have it, some have not); stern, *tezi* or *aigiz* (Muscat?) = *iz* in Red Sea; bottom, *buttin* = *batn*, literally 'belly,' used for inside for anything; side, *jumb* = *gamb*, side of anything; knees, *mshaliman* (meaning 'ribs,' I presume) = *shalmāh*, pl. *shalimān*.

"All outrigger floats are oblique in East Africa, and act as keels or leeboards when laid down on the water by the wind.

"Don't you think anthropologists may be stretching a point sometimes in declaring that similar inventions mean actual contact between races? Invention is a rare and precious thing, but it does occur sometimes. For instance, I have seen a boy at Dongonab, Red Sea, fit outriggers to his *sambūk*, the only outriggers I have seen in the Red Sea. Also the only keel or leeboard I have seen was made by the ghaffir at the salt works, who frequently had to do a long slant with a beam wind from the salt works to Dongonab.

"Outriggers are not found in the Red Sea, for the following good reasons: (1) Absence of wood. This being overcome, we have to consider that the *galawa* is a highly-specialised craft, and its range of usefulness consequently restricted. Outriggers would be an intolerable nuisance to (2) pearl-divers, (3) fishermen who net on the surface of reefs, (4) *sambūk* men, (5) and not worth while for any journey not involving a long run in one direction.

"Haddon speaks of *galawas* being brought to East Africa by *sambūks*. It would be purely as cargo, of course, with outriggers dismantled; with or without its outriggers a dug-out of the narrow, high-sided *galawa* type would be of no use to *sambūk* sailors, so its introduction must have been deliberate, not a mere consequence of *sambūk* traffic.

"The special use of an outrigger canoe seems to me for line fishermen who have to go a long distance out to sea with the light land breeze in the morning and come back when the sea breeze rises, i.e., have both journeys with a wind more or less astern. This implies a settled population such as hardly exists in the Red Sea.

"I presume the *galawa* came from India, where catamarans abound, and the Red Sea *huris* came from the same place, too." [It appears to me that in this sentence Mr. Crossland rather gives away his case for local invention. May not the Dongonab boy he refers to have heard of an outrigger attachment to a canoe?—A. C. H.]

A description, with figures, of the rig and method of sailing the *sambūk* or *dhow* and of pearl and other fishing in the Red Sea is given by Mr. Crossland in Chapter V of his interesting book, *Desert and Water Gardens in the Red Sea* (Cambridge: 1913).—A. C. H.

Peru: Art.

Means.

Pre-Columbian Peruvian Chronology and Cultures. By Philip Ainsworth Means, M.A., F.R.A.I., Boston, U.S.A.

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Some of the readers of MAN may have seen my brief paper entitled "A Survey of Ancient Peruvian Art" (New Haven, 1917), or Mr. Henry Balfour's kind review of it (MAN, 1918, 45). For the benefit of those interested in this matter, I wish to state in brief form what data, collected during a recent trip in Peru and Bolivia, now lead me to consider the correct chronology and culture sequence for those countries.

In my former publication I accepted almost wholly the system founded by Max Uhle, the late German Director of the Museo Nacional, at Lima, and I had objects from several good collections in the United States, and some in the British Museum and in the Louvre as further material. Now, however, I have not only examined several sites in Peru and Bolivia with care, but I have had exceptional opportunity to study the following great private collections:—

In Lima: The collection of Dr. Don Javier Prado y Ugarteche and that of Dr. Don Julio C. Tello.

In Piura: The collection of Dr. Don Victor Eguiguren E. and that of Don Luis Elias y Elias (at Morropón, Dept. of Piura).

In La Paz: The collection of Sr. Mayor Federico Diez de Medina, that of Sr. Arturo Posnansky, and that of Don Augustín de Rada.

Likewise, the Museo Nacional, at Lima (superintended by Don Emilio Gutierrez de Quintanilla), and the Museo Nacional, at La Paz (directed by Don Alberto Jáuregui y Rosquellas).

Two of these collections, the Prado and the Diez de Medina, are unsurpassed anywhere, and are still growing.

On the basis of my recent studies, then, I feel justified in correcting my previous acceptance of Uhle's system. This Table shows the chronology and culture-sequence as I now see it:—

COAST CULTURES.

MOUNTAIN CULTURES.

— (Ca. 200 B.C. to Ca. 200 A.D.) —

(1) Archaic Culture. — Of Central American origin and character. This culture contained the elements whereon were erected the later cultures of the coast.

(3) Early Chimu-Nasca Culture. — An outgrowth and development of the Archaic Culture. Wonderful pottery and buildings of adobe. Gold and silver known. Art at high level. During the later part of this period trade with the interior brought the coast into touch with the mountains.

(5) Middle Chimu-Nasca. — In this period there was much inter-action between the coast and the mountains, so that Tiahuanaco features appear on the coast. These are especially numerous at Pachacamac and around Lima. They are noticeable in the Trujillo district as well.

(2) Archaic Culture. — Brought from Central America by way of the eastern watershed of the continent. Very similar to Archaic Culture of the coast.

(4) Early Tiahuanaco Culture. — Not in touch with the contemporary coast cultures. Stone buildings began to be made. Pottery had many traces of the Archaic still present. Trade with the coast caused a general improvement in the culture-level toward the end of this period.

(6) Middle Tiahuanaco. — In this period Tiahuanaco art reaches its highest level, and begins to deteriorate through an excess of conventionalization. Objects belonging to this period are found in both mountains and coast from Colombia down to Chile and Northern Argentina.

COAST CULTURES.

(7) Late Chimu-Nasca. — A reflection and continuation of the last period (Middle Chimu-Nasca). Progress in the art of building considerable. A series of valley-states grows up along the shore, some of them being united in groups under one ruler.

(9) Inca Empire. — In the middle of the fifteenth century the Incas completed their conquest of the coast states, and introduced their type of culture very generally all over the coast, from Ecuador down to Chile.

The points to which I wish especially to call attention are: That we can date the Archaic Culture rather accurately by means of a comparison with the date of the same culture in Central America (where the recent work of Spinden, Morley, and Bowditch has dated it precisely); that (3), (5), and (7) are not three separate cultures, but are merely three phases of the same culture; that the same is true of (4), (6), and (8).

It is almost certain that the migrations which resulted in the introduction of the Archaic Culture into South America were merely accidental and unsystematic. Undoubtedly there was a certain amount of movement back and forth right down to Spanish times, for Nunez de Balboa and Pizarro both found that the natives at Panama had fairly definite notions as to the Inca empire.

Mr. Balfour, in his review of my work, notes that I make no reference to the Phœnicians. I would like to remark at this point that American ethnologists have been greatly astonished by the acceptance on the part of their British collaborators of the utter nonsense which has been written about Phœnician, Chinese, and Cambodian influences in ancient America. The work of Hrdlicka, Dall, and others has proved that the American aborigines came from Eastern Asia, but it was through accidental hunting-migrations, and the movements began long before any great degree of culture had been reached on either continent. Of course, it is not denied that occasional junks and Polynesian canoes may have reached American shores in later times, but they would have little or no cultural effect.

PHILIP AINSWORTH MEANS.

MOUNTAIN CULTURES.

(8) Late Tiahuanaco. — Much lower than foregoing period. This relapse may almost certainly be attributed to climatic causes. A shift of the centre of population to the Cuzco region was introductory to the next period.

(10) Inca Empire. — Beginning humbly, as an offshoot of the old Tiahuanaco "empire," the Inca tribe built up for itself a wide-spreading empire which constantly improved in culture, and was at its height 1450-1531.

Guatemala: Linguistics.

The letter "A" in Pokomchi. By A. C. Breton.

The following is translated literally from a Pokomchi vocabulary written about 1690 at San Cristobal Cahcoch, in Northern Guatemala, by a missionary priest well acquainted with the language. Laconic speech is also characteristic of Mexico among the common people when talking familiarly, and they use the Spanish *ya* similarly to this *A*. The manuscript vocabulary is in the Berendt Collection of the Museum Library, University of Pennsylvania.

A. — The letter *A* alone in Pokomchi has many meanings and uses. It is:

(1) An exclamation like *O* in Spanish and Latin. *A Dios nimahual* = O God Almighty.

(2) Placed before the verb in a sentence it expresses the past tense. *A xnuban*, *A xnuor* = I have done it, said it already.

Breton.

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(3) Joined to an interrogative, it means, Where. *A pa xoh?* = Where did he go? *A pa vilcat* = Where art thou? *A pila* = Where? And with the dubitative adverb *na*, *A na xoh* = I do not know where he went, or with the verb alone, with the interrogative inflection of a person enquiring. *A vilic* = Where is he? *A xoh acun* = Where did the boy go? And if not known he answers *A vilic*, without the interrogatory inflection, as if saying "I do not know for certain where he is."

(4) Placed after the verb, this *A* serves for him who answers by asking a question, or he who asked and did not hear well what was said, or he who simply answers. *Example of the first*: "Do this," and he says *No quiero* (I do not wish to, or I will not) = *ma nvah*. Enters then the answer to this *no quiero*: *Ma nvah A?* = What is this of *No quiero*, is there *no quiero* in the order? *Ma xrah xoh* = He would not go; *Ma xrah xoh A* = What does this mean, He would not go? *Quimic Juan* = Juan is dead. *Xquirnic A* = Is it possible? In this way, taking the same phrase and adding the *A* with the interrogative. *Example of the second*: "Call the Fiscal here." If he did not hear well, he answers: *Fiscal an yunqueh A* = Do you wish me to summon the Fiscal? *The third*, the simple answer: "Is your father at home?" *Vilic A* = Yes, he is in the house; or if not, *Machi A*.

A is also used in calling: *Quim A*, *quim chalen A* = Come here. *Acun A* *Acuntac A* = Halloo, boy! boys! *A* is also an adverb: *Unchel vinac xoh*, *xoh vo A* *avacun cuctaque* = All the folk went away and thy son went with them. *Pedro xbanuic xnuban vo A* *ruc* = Pedro made this work and I together with him.

Also for continuous time, speaking now in the preterite, now in the future, and for the continuation of anything that has always been customary or done in a certain way, and must be so continued or used, and in its stated terms. *Noh nchalic*, *noh nchalic A e zacum cacharic* = Life continually comes and goes (that is, some die whilst others are born). "So it has been done or used always without fail" = *Xaa he vo banoh xchalic xchalic A*. "So it must be done always in the future" = *He abanaroc noh noh A*, (or), *He abanaroc hunelic A*. "Always in each year without fail" = *Chuhab chuhab A*. "In its time without fail" = *Chuquihil chuquihil A*. Some give it a faint aspiration = *ha*. See in the lexicon of Padre Fray Diego Ximenez the adverb or word *O*, for all the meanings, or most of them, that he gives are the same for this *A*.*

A. C. BRETON.

Malta: Landmarks.

Hardy.

The Maltese Cart Ruts. By Commander H. N. M. Hardy, R.N.

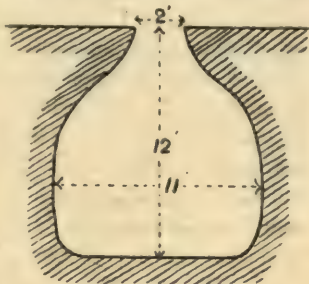
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In MAN, 1918, 52, Professor Boyd Dawkins, in his note on these cart ruts, appears to overlook one or two points which I have noticed in connection with them.

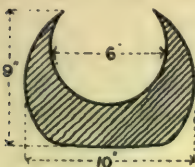
They are always found, as far as my knowledge goes, in conjunction with Stone Age buildings in various parts of the island, and I do not think they are ever found far away from these buildings. The most marked case where they appear to have a definite connection is on a rocky point in Marsa Scirocco, where the so-called cart ruts run over the point under the waters of the bay and emerge on the other side of the bay, where they are now concealed under modern buildings, but I was informed by people who had measured them that their distance apart was exactly the same on both sides of the bay. On the rocky point where they are still to be seen there are some seventy chambers hewn out of the rock. The chambers, which are called wells locally, are bell-shaped, about 2 feet in diameter at the mouth,

* With the possessives, *ra*, *ava*, *ra*, *A* means my thigh, thine, etc., for all that part of the body. *Hinah ra chicop* = One hind quarter of an animal, *Ti ra* = My thigh pains me.

widening to 11 feet at the base, and are from 8 to 11 feet deep, with the opening at the top and there can be no question that these, at least, are not due to natural action, but to human agency. A large number of the wells are below the present sea-level, and could not possibly have been constructed in recent times without modern diving suits. I have no data by me as to the direction by compass in which these ruts run, but I remember they are in some cases curved, as a road curves, and are always exactly parallel.



While I cannot question Professor Boyd Dawkins' geological knowledge, I do not think that they can be lightly dismissed as being the ordinary joints eroded by rain-water, especially as the lines are absolutely continuous in all cases which I have seen and, I believe, when caused by weathering of the rock under natural conditions, the ordinary joints widened by rain-water are, as a rule, not continuous; but the whole question of the work of early man in Malta is one that requires investigation. The use of the pits mentioned above is absolutely unknown. In the summer of 1917 I cleared away the accumulation of earth and stones in two of them, and found only a few animal bones—goat and dog—and a few fragments of neolithic pottery, with, at the extreme bottom of the well, one undated stone utensil, of which attached is a rough section. It is a sphere of limestone, flattened on the lower side, and hollowed out into a rough bowl.



Whatever the purpose may have been for which the wells were constructed, there is no doubt that the sea-level when they were first hollowed out was considerably lower than it is to-day. Even those which are now above water would be drowned in a southerly gale, so that they can hardly have been used for the storage of grain, though they might have been burial pits. A number of them are on the top of a cliff on the south side of the island in a somewhat inaccessible position, which renders it unlikely that they were used for storing food.

Another well-marked case of these ruts being found in conjunction with neolithic buildings is an unnamed neolithic building on the south side of the Wied-x-dalam, where they lead about S.S.E. in the direction in which most of the traffic approaching the building would probably come. If they have no archæological significance, the coincidence of their being found in the near neighbourhood of Stone Age buildings, both on dry land and under water, is at least remarkable.

H. N. M. HARDY.

REVIEWS.

Indonesia: Ethnography.

The Megalithic Culture of Indonesia. By W. J. Perry. Manchester University Press, and Longmans, Green & Co. 1918.

Perry.

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Those who are trying to demonstrate the unity of origin of the megalithic monuments of the world have hitherto met a great difficulty in the supposed absence of these structures in Indonesia. It is an important part of the scheme of the history of the megalithic culture, which we owe especially to Elliot Smith, that it was in the main sea-borne. If, therefore, the culture spread eastwards from the Indo-European area into and across the Pacific Ocean, it must have passed through the East Indian Archipelago, and we should expect to find definite traces of its passage in this region.

The book before us is the first instalment of a research devoted to the investigation of this difficulty. As soon as Mr. Perry became seriously engaged with his problem, he found certain limitations and extensions of his thesis necessary. The earlier cultures of Indonesia have in many places been so overlaid and obscured by later Hindu, Mahomedan, Malay, and Chinese influences that it was found necessary to exclude from the survey regions where undoubted traces of these influences existed. On the other hand, Mr. Perry deals with a number of the peoples of Assam who are not ordinarily included among Indonesians, though their inclusion is thoroughly justified by their linguistic or cultural affinities. Most of the facts of Indonesian ethnography are recorded in the Dutch language and in periodicals not readily accessible in this country. Mr. Perry's thorough knowledge of this literature soon showed the falsity of the current view that megalithic structures do not occur in the Malay Archipelago, and the second chapter of the book contains a description of typical megalithic monuments, found especially in the islands of Sumba and Celebes. It soon became evident, however, that little progress was possible if attention were limited to typical megalithic monuments, and Mr. Perry set to work to collect every sample of the use of stone in those parts of Indonesia included in his survey. When he turned later to other elements of culture such as sun-cult, he followed the same procedure. He was not content merely to record definite examples of this cult, but collected every instance in which the sun had had any influence upon the lives of the people.

The results of the survey so carried out may perhaps be summed up most clearly if they are considered under three headings, determined by the three main criteria which served as Mr. Perry's guiding principles.

The first of these principles is that of common distribution. After collecting every example of the use of stone in the part of Indonesia included in his survey, Mr. Perry found evidence of community of distribution between definite megalithic monuments, and other uses of stone for such purposes as graves, offering places, and seats. He concluded that the builders of the megalithic monuments of Indonesia introduced the use of stone for many other purposes, and henceforward speaks of them as the stone-using immigrants. When he turns to other subjects he still makes use of this principle, and assigns certain elements of culture to the influence of the stone-using immigrants on the ground that their distribution corresponds with that of the cultural use of stone. The practice in which the value of this criterion comes out most strongly is terraced irrigation, the distribution of which corresponds very closely with that of definite megalithic structures.

At an early stage of the argument a second principle* appears, one which may be called the principle of class-association. The construction of definite megalithic monuments, certain uses of stone, and several elements of culture were found to be associated with sections of the community, with chiefs, warriors, or priests. Whenever an element of culture is found to be especially associated with one of these sections of a people, Mr. Perry connects it with the immigrants who introduced the cultural use of stone.

The third principle, which is utilised more and more as the book progresses, may be called the principle of organic connection. An element of culture is assigned to the stone-using immigrants when it can be shown to be organically connected with another element of culture already assigned to this people. The mode of application of this principle may be illustrated by the argument concerning the cultivation of rice. As already mentioned, the practices of terraced cultivation and irrigation are assigned to the stone-using immigrants, chiefly through the application

* This principle is really a special case of that next to be considered, but it is so prominent in the argument that it may be given a special place.

of the principle of common distribution. Indonesian irrigation is used especially for the cultivation of rice, and the principle of organic connection, therefore, points to rice as having been imported by these immigrants. The next step in the argument starts from the belief of several Indonesian peoples that their ancestors learnt how to grow rice from the sky-people of their traditions—people who came from the sky and returned thereto when they died or left the earth. Mr. Perry had already come to the conclusion that the sky-people are the representatives in tradition of the introducers of the use of stone. The principle of organic connection, therefore, again points to the association of rice with the introducers of stone-work. At a later stage of his argument Mr. Perry is led to associate the concept of soul-substance with the stone-using immigrants, and to regard the priests as the repositories of knowledge concerning this and other introduced beliefs. The argument is therefore greatly strengthened when it is found that rice possesses a soul-substance upon the presence of which its health depends, and that it is an important part of the duties of the priest to care for the health of the rice. Moreover, both the priesthood and the concept of soul-substance are associated in tradition and practice with the sky-people, who had already been shown to be connected with the cultivation of rice.

These examples must suffice to show the general character of the argument. By its means Mr. Perry is led to ascribe to the stone-using immigrants many elements of culture in addition to those already mentioned. Among these are a number of beliefs about the sun, all of which appear to be related to one another, though only here and there do they form the basis of a definite sun-cult. In a most interesting chapter on fertility, the introduction of the phallic motive in art is ascribed to the stone-using immigrants, while tradition points to their having practised incestuous unions. The motives of many tales, such as punishment for laughter at animals, especially by means of petrification, and tales of half-men, are also ascribed to the stone-using immigrants.

The study of food restrictions and of the animals which possess soul-substance leads Mr. Perry close to the subject of totemism, but in the absence of data concerning social organisation in Indonesia he is not able to deal with this topic, so obviously raised by this part of his study. Finally, Mr. Perry shows the presence of gold-workings and pearl-fisheries in those localities where the influence of the stone-using people is especially evident. In accordance with the views he has advanced elsewhere, these sources of wealth are held to have formed the inducements which led the stone-using people to settle in Indonesia.

The book must be regarded as a first instalment of a far-reaching research. The subjects dealt with have been determined largely by the principle of organic connection, and many other topics remain to be considered. Prominent among these is the disposal of the dead, on which subject the material is so extensive that Mr. Perry promises to devote to it a special volume. Social organisation is left almost wholly on one side, owing to the fact that this important subject has been neglected by the ethnographers to whom we owe our knowledge of Indonesia.

The sketch of the argument which I have given shows that the book before us forms a definite contribution to ethnological method. Many important methodological problems are dealt with incidentally. One such problem is suggested by Mr. Perry's treatment of tradition. We are now coming to see the highly complex character of the so-called "mythology" of savage and barbarous peoples. It is becoming apparent that the tales told by them form a mass of material out of which by a process of differentiation have been developed the literature, science, and history of civilised peoples. Mr. Perry has boldly recognised the value of native traditions as historical records, and the agreement which he shows between tradition

and evidence reached in other ways makes an important contribution towards the demonstration of the historical value of folk-tales.

Another most important problem which continually confronts those who are studying the diffusion of human culture is presented by the distinction between what I have elsewhere* spoken of as primary and secondary migrations. An element of culture directly introduced into a region by an immigrant people will differ in its nature from one which has been later carried to some other part of the region by a secondary movement. Mr. Perry explains several anomalies of distribution in Indonesia in this way, and thus helps us to understand the mechanism by which human culture is modified when introduced into a new home.

It is because difficulties and discrepancies have not been ignored, but have been boldly faced, and their solution attempted, that the argument is sometimes not easy to follow, and the book not altogether easy to read. In the older sciences many of the greatest advances have been made through the study of eccentricities and residues, and the same will undoubtedly be true of ethnology. This science is fortunate that at this early stage in its history an anomaly in the distribution of megalithic monuments should have been studied so thoroughly and patiently as in the book before us.

W. H. R. RIVERS.

Africa, West : Linguistics.

Rattray.

An Elementary Mòle Grammar, with a Vocabulary of over 1,000 Words. 95
For the use of Officials in the Northern Territories of the Gold Coast.
Compiled by R. S. Rattray, M.B.E. Oxford, at the Clarendon Press. 1918. 85 pp.

Mòle is the language which has hitherto been known, from the name of the people who speak it, as Moshi. These are the enterprising traders who dwell in French territory north of the Gold Coast Colony, and bring down every year a large number of cattle into the Northern Territory. Many of the same people are also settling and finding work in the British Possession.

The language is a typical member of one of those detached Negro groups which have commonly been called Semi-Bantu, and by Westermann the Sudanic Class Languages. The noun classification (with singular and plural) is, however, carried out in Mòle by suffixes. The noun changes its form considerably when used with an adjective, but there is no likeness to the elaborate system of concords found in the Bantu languages. The verb is conjugated for tense by suffixes, and for person and number by abbreviated pronouns. Mr. Rattray's work consists of a good grammar with notes on idioms and syntax, and a useful Mòle-English Vocabulary. A future edition might be improved by the inclusion of more examples of phraseology, some short texts, and an English-Mòle index. As it is, however, the book is essentially a very practical one, and will enable those who come into contact with this interesting people to understand them better and to be better understood by them. The volume is well printed and usefully interleaved.

S. H. RAY.

India : Folklore.

Mackenzie.

Indian Fairy Stories. By Donald A. Mackenzie. London : Blackie & Son, 96
Ltd. 1915.

Mr. Mackenzie has brought together in this volume a collection of twenty-three tales, described as Indian Fairy Tales. The description is to a certain extent justified, for most of the stories are undoubtedly based on Indian origins, but it would be a mistake to regard them as genuine Indian folklore. They are not renderings of actual Indian stories, but have been transmuted by passing through a European crucible into metal of an entirely different kind. There is not a particle of informa-

* *History of Melanesian History*, Vol. ii, p. 308.

tion as to what part of India they are drawn from, if of popular origin, nor as to what their literary sources are, if they are of literary origin. We are told in the preface indeed that two of them, short fables (which occupy but five pages of the volume), are derived from the *Mahābhārata*, but this is the only information vouchsafed us. As to the intrusion of European ideas it may be sufficient to allude to the story of "The Vain Camel." This camel is described as an eater of thistles and as grazing in deep forests. Now camels do not eat thistles, for there are no thistles in their grazing grounds, nor do they graze in deep forests but in open jungles. No description of a camel told by a narrator familiar with these beasts could be guilty of such a blunder. As to some of the stories it is hard to accept them as Indian even in origin. Such are the "Story of the Ocean Queen," and the "Story of the Star Maidens," which do not suggest any Indian source, and seem quite foreign both in idea and expression to the whole spirit of the Indian folktales.

If the book is intended simply for popular consumption it may be admitted that it is a collection of pretty stories. It is also adorned with some good illustrations in black and white and an excellent coloured frontispiece, which has more of the Oriental spirit than the tales themselves. M. LONGWORTH DAMES.

University of Pennsylvania.

The Museum Journal. Vol. IX, No. 1. March, 1918. Philadelphia.

The directorate of the University Museum at Philadelphia has done and is **97** doing many things of importance and interest both for ethnology and archæology, in addition to the gradual extension of the fine museum building and its exhibits, all defrayed by the generosity of private patrons. The mere list of publications on the cover of *The Museum Journal* is a remarkable record; in the Babylonian section, twenty-two volumes of texts, Sumerian and cuneiform, eight volumes of the results from the Eckley B. Coxe expeditions to Nubia, three volumes of Cretan excavations, Dr. Max Uhle's valuable report on Pachacamac (Peru), and other lesser works.

For some years past, the Amazon expeditions, headed by Dr. W. C. Farabee, have absorbed the principal energies of the museum, whilst important excavations have been conducted in the palace of Meren Ptah at Memphis, and an expedition has recently gone to the mountain region of Venezuela. Dr. Farabee's report on his expeditions is unfortunately delayed as he is now employed on Government war service, but the *Journal* contains a short account by him on the Decorative Arts of the Amazon with many photographs of baskets, beaded aprons, and three ceremonial clubs from the Waiwai, Wapisiana and Apalaii, which suggest a connection with the South Seas. Owing to the very simple form of existence of the modern natives there is little opportunity for the development of art, but the capacity is there and was exemplified by a Waiwai who saw Dr. Farabee sketching, was given a sketchbook and pencil, and produced in a few hours drawings of a number of animals, &c., known to him (Fig. 27). These, Dr. Farabee remarks, suggest that he drew the objects rather from memory of their appearance as basketry designs than from sight. But other men recognised them, in spite of their artificial aspect. Dr. Farabee came in contact with several parties of the natives who had never before seen a white man, especially in the southern portion of British Guiana. It is to be hoped that a connected account of his journeys and finds may soon be available, especially with regard to the colossal funeral jars that he brought back, some of them large enough to contain two bodies seated side by side. There are also Conebo beer-jars of pottery, 4 feet high and about the same diameter, but resting on a very small base.

The unique North American Art of Quillwork, described by Mr. B. W. Merwin, is illustrated by fine specimens belonging to the Museum and showing the patient

industry of the Indian woman. In studying Mexican Indians the observer is constantly noticing that, to them nothing seems worth doing unless it costs them much time and trouble. So with the quill work; there was the getting of the quills, often by barter from tribes several hundred miles away; then the dyeing by boiling in some vegetable dye, sought in many places: "Tamarack bark, spruce cones, and several varieties of berries were used to produce red. Walnuts and wild grapes furnished blacks of different qualities. Wild sunflowers, the cornflower, pine bark, and willow root supplied the yellows. Blueberries and larkspur gave different shades of blue. The Indian woman had to be well versed in plant lore. Many methods of working were devised and complex foldings and stitches were employed to develop symbolic designs. The only implements used even in the most intricate work were an awl and sometimes a piece of bone to flatten the quills, also some sinew thread and usually some bark or leather patterns."

Four excellent photographs of totem poles near the Skeena river, B.C., accompany some legends (though not referring to them), obtained there by Dr. G. B. Gordon in 1917. Large detailed photographs are badly needed to give a true idea of the clever carving of some on these poles, and the humour of the less conventionalised figures.

Turning to a very different region, there are some beautiful drawings from ancient Central American sculptures, or from masterly photographs of them. The face of the seated king from the Hieroglyphic Stairway at Copan, looks out between the jaws of a huge serpent head with two twining bodies ending in rattles and the waving *quetzal* feather headdress towers behind. According to Dr. G. B. Gordon (who excavated the stairway), this was only one of several figures rather more than life-size and carved in very bold relief, seated in the centre, one above the other, and all painted originally in soft yet brilliant colours. Two other drawings are of details of the great stela with a king, his attendants, and a party of captives. These, and Figs. 4, 5, and 6, deserve careful study in order to understand the unfamiliar ornaments and emblems.

A coloured reproduction of a painted Maya vase from a mound in British Honduras, and an alabaster vase from the Uloa river are remarkable for the simplicity of form combined with elaborate ornament.

This whole number of the Journal illustrates the varied capacities of native American artists, working mainly by instinctive perception of what was pleasing to eyes trained by observation of Nature.

A. C. B.

ANTHROPOLOGICAL NOTE.

MR. MARSHALL H. SAVILLE has made three trips to Guatemala during the last two years, bringing back about four thousand archaeological specimens, with the locality of each authenticated. He visited a large obsidian quarry near Fiscal and secured photographs and a quantity of the quarry material, such as unfinished pieces and rejects. He studied the ruins near Lake Amatitlan and is endeavouring to establish definite culture areas in Guatemala, hoping to return later, the severe earthquake having prevented the intended stratigraphic work near the capital city. Mr. Saville found near Antigua a large nodule of polished chert with an inscription incised in double columns (and in the slanting style of glyphs in the Dresden codex), running down on each side of the sphere. He has also secured the most magnificent example of a pottery vessel ever found in ancient America. It is a large globular pot, sculptured, with Mayan motives, in the style of the "great turtle" at Quirigua. This is from the region between Zacapa and Guatemala city.



AGIBA SHRINE FROM A DUBU DAIMA, AT DOPIMA,
GOARIBARI ISLAND.

ORIGINAL ARTICLES.

With Plate M.

Gulf of Papua: Ethnography.

Haddon.

The Agiba Cult of the Kerewa Culture. By A. C. Haddon.

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In the Gulf of Papua there may be distinguished four cultures, which, from east to west, may be termed the Elema, the Namau, the Urama, and the Kerewa; of these the three first are distinctly inter-related, but the last is more distinct. Without doubt these cultures have reached the coast from the interior of the island, though we are as yet ignorant of the routes they have traversed.

The term Kerewa is adopted from the village of that name at the northerly point of Goaribari Island, from which the other villages on this island, and certain others (Goro, Ubua, Ai-idia, Mombagoa, etc.) on the mainland and neighbouring islands, are stated to have been founded. The villages of Keme, Pai-ia-a, and Aimaha, on the opposite mainland, appear to rank with Kerewa as original sites; as they have the same culture it is necessary to unite them under one designation, and provisionally I adopt the term "Kerewa" (cf. H. J. Ryan,* *Annual Report, Papua*, 1912-13, p. 76). The *agiba* may be taken as a criterion of this culture; the custom of employing these skull shrines extends also to the Kiko-Kairi tribes on Ututi creek (about seven miles above Kikori Station), to the region of the mouths of the Omati and Turāma rivers, and probably further inland. The language spoken on Goaribari and in the vicinity is known as *Kerewa wadi*, and is allied to that spoken by the Kiwai folk.



FIG. 1.—*Dubu daima*, Pai-ia-a, Omati River; photograph by A. C. Haddon.

The Kerewa peoples live almost entirely on sago (*do*) and crabs (*ka-uri*), and the grubs that infest old sago palms. Owing to the swampy nature of the country they have but poor gardens, in which they grow bananas (*dubai*), sweet potatoes?, sugar-cane (*uri*), coconuts (*gota*), and a poor kind of native pumpkin, but no yams.

A village usually consists of a *dubu daima*, where the married men live; *ohiabai daima*, or young men's house; and the women's houses, *upi daima*. The *dubu daima* (Fig. 1) is a very long pile-dwelling varying from about 100 to over

* Since this was written I have heard, to my great regret, that my friend, Lieut. J. H. Ryan, was killed on July 17th, when leading his men in an attack in France.

200 yards in length.* The ridge is horizontal, or rises slightly at the front end and is supported by a central row of poles. There is a platform and entrance usually at each end, and several (usually five or six) side entrances. A gangway extends along the whole length of the interior, on each side of which are a number of cubicles, which are the sleeping places of the married men. I understand that the house is visited by women and girls only on the occasions of the *buguru* ceremony, which lasts for four days, and at which great sexual licence is permitted. This appears to be the ceremony described by H. J. Ryan, which, according to his account, is a simple kind of initiation rite culminating in marriage (*l.c.* pp. 76, 77).

In the *dubu daima* are a variable number of skull shrines (*agiba*).† An *agiba* consists of a flat oval board, the upper part of which is carved to represent a human face, and the lower part is perforated so as to leave two vertical hooks. The lower central portion of the board evidently represents a body, the lateral parts being the arms, and the upright hooks may represent the legs. It is painted black, red, and



FIG. 2.—*Agiba* in the *dubu daima* at Dopima ; photograph by A. C. Haddon.



FIG. 3.—*Agiba*, "Aird River delta," from Seligman.

white. In front is a shelf (*pepe*), on which rest human skulls (*oro* or *opuoro*), probably of enemies or victims, these being attached by long loops to the hooks. The whole is lashed to poles which reach from the floor to the roof. I was informed at Aimaha that an *agiba* is carved by a man when he takes a head, but other men add skulls from time to time; the skulls are those of enemies only. One of the *agiba* in this *dubu daima* was brought from another village. Probably the *agiba* is a family shrine, and I suspect that the figure is the representation of an ancestor. I obtained a second *agiba* at Dopima (height 735 mm., breadth 365 mm.) which is very similar to that shown on Plate M. The one photographed *in situ* at Dopima (Fig. 2) had between fifty and sixty skulls attached to it. One at Pai-ia-a was

* I found that the one at Dopima was nearly 201·3 m. (660 feet) long, 10 m. (33 ft.) wide, and the floor was 1·98 m. (78 in.) above the ground. G. le Hunte estimated the length of a *dubu daima* on the right bank of the mouth of the Omati at 274·5 m. (900 ft.) (*Annual Report B.N.G.*, 1900-1, p. 28). The one described and figured by Jukes (p. 271) was over 300 yards in length (see next page).

† In the official reports this spelled *agibi*; in several cases I have ventured to differ from the official spelling of words.

1.07 m. (42 in.) high. I reproduce (Fig. 3) the *agiba* figured by C. G. Seligman (*Journ. Roy. Anthr. Inst.*, XXXIX., 1909, p. 259). I do not recall any other illustration of these objects, but they have several times been mentioned by missionaries and Government officials.

The skulls attached to an *agiba* may be plain or decorated in various ways (Plate M). C. G. Murray says: "As regards the skulls in the houses, those having 'artificial noses attached to them are of people who have died natural deaths; 'those that have no noses attached have been killed.'" (*Annual Report B.N.G.*, 1900-1, p. 33.) This requires verification. J. H. P. Murray states that their own dead are exposed on platforms until they are reduced to skeletons; the skulls are taken into the dwelling-houses, and the other bones are buried in a large mound (*Annual Report B.N.G.*, 1908, p. 12). I was informed that at Aimaha a widow puts the skull of her husband in her house. After a time a dance is held, and the skull is buried, but that the skulls of enemies are placed on the *agiba*.

One kind of decoration consists of having an artificial face made of clay and painted red; the nose is long and narrow and perforated at the tip, in the orifice of which a nose ornament may be inserted. The orbits are generally filled up with white clay, and shells or seeds may represent the eyes. The three specimens I obtained are shown in Plate M. Five Goaribari skulls in the museum of the University of Aberdeen are similarly decorated (R. H. Spittal, *Proc. Anat. Anthr. Soc. Univ. Aberdeen*, 1904-6 (1906), p. 88). I believe this special type is characteristic of the Kerewa culture, but skulls with artificial faces occur in Torres Straits, the Fly and Sëpik rivers.

Skulls are also found with a cylindrical projection from each orbit, often with a red *Mucuna* bean at the tip, and covered over (as is the face) with grey coix seeds. The earliest account of this decoration is by J. B. Jukes (*Voyage of H.M.S. Fly*, I, 1847, p. 274, and figure). He named the village where the skulls were looted "Pigville." It was almost certainly a Kerewa village. The skulls are in the museum of the Royal College of Surgeons (*cf.* J. Edge-Partington, *Ethnographical Album of the Pacific Islands*, II, 1895, Plate 196, Figs. 1, 2). Other ethnographical specimens collected on this occasion are in the British Museum. R. H. Spittal (*l.c.*) describes three similar skulls from the Bamu River, and figures (Plates VI, VII) one fine specimen in the Aberdeen University Museum with very prominent eye-stalks and a perforated decorated oval board in the nasal aperture.

In the museum at Port Moresby there is a similar skull (*epita*) from the estuary of the Bamu. The eye-stalks are 82 mm. high; the nose-board is rather elaborate. Two essentially similar skulls with eye-stalks and nose-boards were figured (Plate facing p. 8) in the *Annual Report B.N.G.*, 1896-97, Brisbane, 1898, as coming from Neneba, on the eastern slopes of Mt. Scratchley. A. Giulianetti says (p. 68) that the people of this village (which is now derelict) place their dead in a box covered by a net, about 8 feet from the ground, and enclosed by a fence of about the same height, outside of which is a ring of large flat stones. When the skeleton is clean, the skull is removed and placed in a small house built specially for the purpose of storing the skulls of the tribe; but he does not say anything about skulls being decorated.

F. von Luschan describes and figures in M. Krieger's *Neu-Guinea* (Berlin, 1899, p. 507, Fig. 48), a skull of this type, but with spikes in the orbits, which are probably supports for a pith eye-stalk; presumably on account of the foregoing reference, he describes it as coming from Neneba, but evidently this is the same skull (No. 36) that is figured in W. D. Webster's *Illustrated Catalogue*, Vol. III, where it is stated to come from the Fly River. Doubting the allocation of these skulls to Neneba, I asked Governor J. H. P. Murray to institute special enquiries on this

point, which he kindly did. T. Millar (acting R.M.) replied to him: "The last lot of skulls I saw were at Semola in 1912, and they were not decorated. When at Neneba at the same time I did not see any skulls" (May 31, 1917). A blunder or wilful misrepresentation has evidently occurred, but by whom it is not now possible to discover. We are thus justified in stating that this method of decorating skulls extends from the Bamu to the Kerewa district. The same also applies to the nose-boards, which are called *kanega* at the mouth of the Fly, on the authority of J. Chalmers, who says: "When a head is carried home and cleaned, and all the smell quite gone, the *kanega* is stuck in the skull, which is hung up on a post (*bio*) of the house" (MS.). Two of these specimens collected by him are figured by Edge-Partington (*Album*, II, Plate 197, Figs. 5, 6).

When a new *dubu daima* is built by any of the Kerewa peoples a man from another place is killed and brought to the new building and eaten in it. At Dopima, they said they did not sprinkle the blood on the posts of the house. It will be remembered that it was on an occasion of this kind that the famous missionary James Chalmers (Tamate) and his colleague O. F. Tomkins were killed and eaten at Dopima on the 7th of April 1901. (*Annual Report B.N.G.*, 1900-1901 (1902)). The *dubu daima* of the villages implicated in these murders were burnt and the war canoes destroyed. In a report on the massacre, the Rev. H. M. Dauncey says, "In one of the *dubus* were over seven hundred skulls, and at another four hundred. Some of the other *dubus* were cleared before the party reached them, but I am within the mark in saying that there must have been ten thousand skulls in the twenty *dubus* burned." (Quoted from *The New Guinea Mission*, by G. Currie Martin, 1908, p. 78.)

I was informed at Dopima that when a new war canoe (*obi*) is made the warriors go in it to a strange village on the mainland and kill a man. They said the canoe is not sprinkled with his blood (but I doubt this), the body is eaten and the skull attached to an *agiba*. In Ubua, an off-shoot from Kerewa in the Kikori estuary, the beheaded corpse is held over the bow of the new canoe, so that the latter is covered with blood. At Dubu-muba, an off-shoot from Ubua on a neighbouring island, a new canoe is blooded. The eyes, nose, ears, intestines, and genitals are not eaten, the body, after having been scorched "all same pig," is cut into small pieces which are mixed with "New Guinea cabbage" (the *ombi* of the Northern Division) and a little sago, which is boiled in a bamboo over a fire, or, according to another informant, mixed with sago and wrapped in nipa palm leaves and roasted over a fire, there being no earth oven in this district. In all cases the body of the victim was eaten and the skull kept in the *dubu daima*. The Kerewa folk were in the habit of raiding the bush tribes of the Omati and those of neighbouring rivers, but most raids appear to have been made right up to the hills on the Sirebi River, which flows from the east into the Kikori some thirty miles from its mouth. H. J. Ryan gives an instance of the murder of a local native by nine Ubua men who went up this river to make a new war canoe; after painting it with his blood they placed the body in the canoe and returned to their village (*l.c.*, p. 80).

I noticed in the *dubu daima* at Dopima and other Kerewa villages miniature *agiba*, called *marabu*, to which birds' heads were attached; they were without a shelf. E. W. P. Chinnery informs me that he has seen outside a door in an Ututi village a similar object, to which were attached birds' skulls, bones of cassowaries, and lizards' skeletons. They were more or less similar to three specimens (Fig. 4) which I collected at Wododo, a village on the north of Dibiri island, in the estuary of the Bamu, where they are called *gope*. I do not know their significance, but it is suggestive that, though the human-skull shrines have not been definitely recorded beyond the area noted above, the bird-skull shrines extend to the estuary

of the Fly, or at all events to that of the Bamu. There is another *gope* from "Deberi," of the same type as the foregoing, in the Cambridge Museum; length 415 mm., breadth 130 mm. Given to the same museum by G. Landtman is a specimen he collected at Kiwai island in 1910. It consists of an oval board, concavo-convex from side to side, 685 mm. long and 223 mm. broad; there is a carved face above, and in the centre are two oval apertures, with a vertical hook in each; the board is uncoloured except that the deep intaglio parts of the carving are coloured white. It evidently falls in with this series, but the head is not disengaged.

I also obtained at Wododo a well-carved *gope*, which consists of a face with two elongated perforations below the mouth, which converge to the median line inferiorly; the body is without recognisable arms, and its lower part is broken, but it evidently was curved upwards to form two hooks; height 410 mm., breadth 165 mm. I doubt if it is large enough to support human skulls. A somewhat similar object, described as a "Holder for three human skulls, made of wood, carved, and decorated in red, black, and white; native name *goapey*, Dameiacara, "mouth of Fly River," is figured in Webster's *Illustrated Catalogue*, III, No. 18. It has no arms but has a vertical hook on each side and a central one in an orifice; no dimensions are given. Dameiacara may be the village called Damerakoromo in the official map, which lies opposite Dibiri, in the Bamu estuary. J. Edge-Partington (*Album*, III, 1898, Plate 72) gives an example of each of these two types, which he describes as "Flat wooden objects (*goapen*) for holding the skulls of fish, turtle, and birds, coloured red and black. Mouth of "Fly River." The one with two hooks is 20½ in. (521 mm.) high, and the one with three hooks 32 in. (1,067 mm.) high.

All these specimens are certainly connected with a skull-cult of some sort.

Carved and painted boards, *kaiaimuru*, are erected in the *dubu daima*, usually close by the entrance to a cubicle; they are doubtless connected with an ancestor cult. Of these I collected three specimens at Pai-ia-a,



FIG. 4.—Bird-skull shrines, *gope*, Wododo, Dibiri island, estuary of the Bamu. (A) Black, the intaglio shows light wood; length 450 mm., breadth 155 mm.; with two imitation bamboo knives, the jaw of a young pig (*Sus papuensis*), and skulls of *kaura* (the small Eastern curlew, *Numenius minutus*, a winter resident from the north), and skulls of other small birds. (B) Black, red, and white; length 530 mm., breadth 205 mm.; with skulls of the *dobudobu* (Papuan frogmouth or "morepork," *Podargus papuensis*), *dubukoko* (Papuan crow, *Cracticus personatus*), *oripiko* (horned friar-bird, *Philemon* sp.), and several kinds of Meliphagina birds. (C) Blackened all over; length 410 mm., breadth 120 mm.; with two imitation bamboo knives, and skulls of the great black cockatoo (*Microglossus aterrinus*) and a kingfisher (*Tanysiptera* sp.), &c.—Museum of Arch. and Eth., Cambridge, collected by A. C. Haddon, 1914.

Omati River (Fig. 5). In the same house I obtained a wooden effigy of a man and of a woman, which were made by a man to represent the dead parents of the youth to whom they were given (Figs. 6 A, B), and also a carved stick of heavy



FIG. 5.—*Kaaimuru* from a *dubu daima* at Pai-ia-a, Omati River. All are painted black, red, and white. (A) Slightly concavo-convex from side to side, length 1.113 m., breadth 280 mm. (B) Concavo-convex from side to side, length, 1.555 m., breadth 250 mm. (C) Flat, length 1.240 m., breadth 123 mm.—Museum of Arch. and Eth., Cambridge, collected by A. C. Haddon, 1914.



FIG. 6.—(A) Effigy of a deceased father, roughly carved out of heavy wood, carved portion painted black, red, and white, with a shell eye; 1.010 m. high. (B) Effigy of a deceased mother, uncoloured, with characteristic woman's dress; 1.300 m. high. (C) Magical stick (*abioabio*) carved out of heavy wood, carved portion originally coloured red and white; length 76 cm.

wood, *abioabio*, (*abio* = malevolent magic). This magical stick (Fig. 6 C) is supposed to make a canoe invisible when the crew go on a head-hunting expedition; the owner paints himself with red and white pigment and rubs a leaf and the kernel of a young coconut on his face.

There are other interesting features about the Kerewa culture which I cannot deal with here. Allusion may, however, be made to the occurrence of basketwork masks (*awoto*) similar to those of the Sëpik River (cf. J. H. P. Murray, *Papua*, 1912, p. 189, Plates pp. 187, 204; O. Reche, *Der Kaiserin - Augusta - Fluss*, Hamburg, 1913, p. 409 ff., Plates LXXVIII-LXXXIII and Fig. 427; Frobenius, *Int. Arch. f. Ethnogr.* XI, 1898, Plate IV, Fig. 26; F. von Luschan, *Büss. Arch.*, 1911, Figs. 28, 29). I believe that similar masks occur also in the region of the Bamu.

Skulls with painted clay faces and otherwise decorated occur higher up the Sëpik. In the "Middle river" district, or "Culture III" (*i.e.*, Plates LXVI-LXIX), one has a long cylindrical piece of wood as a nose, which is perforated at the base to represent nostrils. Many skulls from near the mouth of the river, "Culture I," have elaborate carvings on the frontals; also here are to be found human skulls attached as heads to wooden effigies (pp. 357, 374, Figs. 399, 400), analogous to one I obtained at Ukíaravi, Purari delta.

From various parts of the Sëpik come wooden double hooks with a human face carved on the shank, analogous to the *gope* I obtained at Wododo.

On the other hand, there are many characteristics of the cultures along the Sëpik which have not as yet been noted in British New Guinea, but there cannot be any doubt that the essential elements of these cultures have penetrated to the Gulf of Papua by various cultural streams. It also seems to be established, from the evidence given above and from further data known to me, that there is an intimate relation between the culture of the Bamu estuary and that of the Kerewa district, the significance of which is not yet quite clear.

I have to thank the Trustees of the Percy Sladen Memorial Fund for enabling me to visit the Gulf of Papua, for without their aid I should not have been able to study this region.

A. C. HADDON.

DESCRIPTION OF PLATE M.

AGIBA SHRINE, FROM A *dubu daima* AT DOPIMA, GOARIBARI ISLAND.

Height of board 850 cm., breadth 365 cm. Painted red and white, with a wooden imitation of a crescentic pearl-shell chest ornament.

On the shelf is a plaited palm leaf mat; the skulls resting on it, from left to right, are:—

- (a) Juv., deformed; Aimaha.
- (b) Male, adult, artificial red face with long nose perforated at its end, eyes white, a black band from malar round eyes and down the sides of the nose to its tip. A-shaped incisions with cross hatchings on temporal regions; Dopima.
- (c) Male, adult, with cylindrical projection in right orbit (the left one is missing), which, with the face, is coated with coix seeds; Aimaha.
- (d) Male, adult, long ratan nose with recurved tip, eye sockets filled up, incised transverse band with chevrons on frontal; Dopima.
- (e) Juv., similar to b, but with cowries in orbits and a boar's tusk in nasal perforation, obscure transverse incisions on frontal; Dopima.
- (f) Nearly adult, face as in b, piece of cane in nasal perforation, coix seeds in orbit, a sago fibre fringe on each zygoma, an incised band of chevrons on each temporal line; Pai-ia-a.
- (g) Juv., orbits filled up, perforated slab of wood in the nasal aperture; Dopima.

It will be noted that only b, d, e, f, g actually belonged to this shrine, but one is justified in placing the others on it as they belong to the same culture, and on any shrine skulls may be quite plain or decorated as above. All have the typical long loop attached to the maxillæ; at Pai-ia-a this was called *áto iri* (plaited 'lawyer vine').—Cambridge Museum of Arch. and Eth., collected by A. C. Haddon, 1914.

Nigerian Notes.

Thomas.

(II) **Metal Work.** *By N. W. Thomas.*

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Though other metals, such as copper and lead, may be used for bracelets, the only two which are of real industrial importance among the Edo are iron and brass; the use of the former of these two is again not unnaturally far more extensive than that of the other, and it is rare to find a village of any size without one or even two smithies, which serve as a meeting place in the hot hours of the early afternoon. Work in the smithy is carried on at irregular intervals, and the blacksmith is seldom or never wholly dependent on his craft for a living.

The case of the brass workers is somewhat different; they are, comparatively speaking, an organised body in Edo, with a chief at their head; they live in one street for the most part, and if they now turn to other work to eke out a livelihood it seems likely that it is a late development due to the alteration of conditions.

(a) IRON.

In the case of a blacksmith in the village the craft may well be hereditary, though I never found a son at work with his father. In Edo a boy is sent to learn the work at an early age—seven or soon after; a fee is paid by the father—said to be 5*l.*—and a sacrifice is offered to Ogun, the deity of blacksmiths.

The tools of blacksmiths and brass-smiths are to some extent identical, but for the latter the file is more useful than the hammer. The blacksmith makes his own tools: a hammer (*umomo*), sometimes conical, sometimes square; a firehook (*ukwere*), an anvil, consisting of a stout iron pin with a circular top; a file and a chisel. The bellows (*ekwe*) are of goatskin, two bags with wooden handles tied in the centre, the air being expelled through two conical pottery tubes (*obwe*) fixed in the block of wood, on the top of which are the aperture for the skins. The bellows are fixed in the ground, and the nozzles are hidden in the ashes. Sometimes a boy acts as blower, sometimes the bringer of an article to be repaired undertakes the job.

The main work to be done is the repair of matchets for field work, of hoes, and of minor articles such as chains, toy bows and arrows, and other objects used in the cults. Some of these latter are usually to be found in the market. Tools are also made for leather workers, carpenters, and others; and hand or stand lamps (*orukpa*) may be made when there is a purchaser. These lamps are flat bowls, the stand lamps with a long stem for planting in the ground, the hand lamps with a double bow and chain over the bowl; in each case there is a spoon for the oil and a “tortoise” to be placed on the cotton wick to prevent the flame from spreading too far.

Other articles of manufacture are hinges (*olodu*), door keys (*isahe*), women’s hairpins and knives, men’s knives, and Osun, an account of which is given in another section.

For the working of iron the *azemomo* tree is cut while it is green, and the logs piled up without being dried and fired at once; the charcoal (*enii*) is brought home. To light the fire a brand is taken from the house and carried to the smithy with the aid of pincers.

In parts of Northern Nigeria, such as Uyame, in the north-east of the Central Province, iron is also smelted from ore. I witnessed the operation only once—at Megeri—and ignorance of the language prevented me from ascertaining details. The conical furnace was of clay beneath a hut, about 4 feet high, with a hole sunk in the centre. So far as I could ascertain, ore and wood are put in alternate layers, and the bellows worked until the metal flows into the hole beneath the cone. The pigs are probably small; iron is chipped off them for use with a hammer or chisel.

The bellows consisted of a piece of skin, three or four feet square, which was simply pulled in and out by a man.

(b) BRASS.

The brass workers say that they are descended from the Kings of Ufe, one of whom married the daughter of a brass worker. She bore seven sons, and all but the youngest became kings; the youngest son reflected that his mother was the daughter of a brass worker and became himself a blacksmith. From Ufe he was sent to Edo to greet the king, and remained there to found the colony of brass workers.

A boy is apprenticed at an early age; or, if he comes from the family of the chief, he comes as a learner and receives a wife when he is marriageable.

At an early age a boy learns to make moulds for the small hawk bells that are worn by children, and occasionally figure on the ceremonial dress of a priest. A clay or mud core is prepared by one boy; another takes bees-wax, probably mixed with oil to soften it, and rolls it out in long strings with a cam-wood roller and board; when the string is finished it is laid in some cross wires; then the other boy takes it and winds it round the clay core in the pattern to be produced, with a final curl to represent the handle. When a sufficient number of these moulds are prepared, they are set in a large pot, arranged as it were like grapes on a bunch, the stalks being the lines along which the molten metal is to run. This mould ready, it is heated in the fire and the wax run out; it is then ready for the casting.

At present brass seems to be obtained from European sources; formerly it was got from the king, and was naturally of a different quality. It is broken up and put in a clay or sand crucible over the fire, or, rather, imbedded in the fire, which is blown up with the bellows. When the brass is in a liquid state it is poured into the mould, which is then immersed in water and broken to extract the bells; the excrescences are filed off, and after being rubbed with sand the bells are ready for sale.

At the present day there is not a large sale for genuine native work of the old type. A certain number of bracelets are, no doubt, made; occasionally a brass-hilted knife may be manufactured; and an *uhumexwe*, or face-mask, formerly worn by chiefs on the left side when they went to visit the king, can still be turned out in creditable style.

The majority, however, of the modern articles are of inferior metal, badly modelled, and altogether different from the old style. They are made for sale to Europeans, and depict recent events or scenes of every-day life; occasionally armlets are turned out for the same purpose. In old days, however, many more articles were required; dishes (of wood) for the king's use were ornamented with brass; bells, lamps, and ceremonial objects of all sorts must have been needed; and possibly a certain amount may have been exported.

Objects figured in *Antiquities from Benin City* are seldom recognised by modern brass-smiths as in any way resembling the work which they put out; *uhumexwe*, *asan*, and a few other objects complete the list. The old brass ware does not seem to have wandered far from Edo; but occasionally I found in other parts of the country objects which from their style of workmanship might have been produced in Edo. Such, for example, was a leopard's head sold to me at Okpe.

There are but few old bronzes obtainable at the present day. I procured a fragment of a necklace, said to have been worn by Osuon, and a figurine, 23 cm. high, of a woman with Usen marks, holding what may be intended to represent a tension drum in her two hands. I also saw in Edo a broken lamp pedestal of bronze, hollow, with an earthy core; on the disks which stand out from the central staff are decorative heads.

Brass hair pins with broad ends decorated with incised lines or punched holes are common in the Ora country; they seem to be made by blacksmiths.

Beyond the making of the bells I had no opportunity of seeing castings made in Edo; but I saw a brass-smith at work with his hammer occasionally. He used a hammer in shape something like a tent peg, but the flat edge was used to strike the object with. In one case a piece of brass with a hook at each end was straightened and then made four square with rapid blows on each side, the bar being turned 90° each time. I was struck with the accuracy of the work.

N. W. THOMAS.

Geology.

Greenhithe Shell-bed. *By Reginald A. Smith, F.S.A.*

Smith.

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An examination of the Stopes collection, in course of arrangement for the National Museum of Wales, has revealed some additional evidence as to the date of the shell-bed at Ingress Vale, Greenhithe, Kent, the material from which is now scattered in several collections. Unfortunately, the comparatively large series now at Cardiff is not accompanied by any stratigraphical record, but the site was evidently occupied as late as Le Moustier times, though the fauna of the main deposit has been referred to the Pliocene (witness the *Trogontherium* and *Neritina grataloupiana*). The excavation undertaken in 1913 on behalf of the British Museum and the Geological Survey (*see Archaeologia*, LXV, 192) yielded no less than 500 flakes, but no implements of any kind, which was disappointing, in view of the many fine specimens of St. Acheul type obtained previously by several collectors.

The critical point was, and is, the relation of these ovates to the seam of Pliocene shells, and it will perhaps never be decided, as very little remains of the deposit; but the late Mr. Stopes collected enough to establish a sequence, even though the occurrence of several types on the same site may revive the contention that all types occur together at all periods.

Apart from broken material and mere flakes (some of which closely resemble the series in the British Museum), the following were the principal items:—

- 5 specimens chipped in eolithic style, one apparently a true eolith.
- 2 rolled hand-axes, one triangular and ochreous, the other with squared point and notch below it.
- 1 rolled ochreous hand-axe, triangular, with cutting-edge below, and a paler specimen with reversed S-twist on one side.
- 1 heavy hand-axe, mottled brown and yellow, much rolled, scratched, and glossy.
- 11 broken implements of various types, two of them rolled.
- 2 twisted implements, both with reversed S-curve.
- 19 small, unrolled, pear-shaped hand-axes of the type commonly found in the Barnfield pit opposite.
- 37 other implements of various ordinary types, six with white or creamy patina.
- 15 ovates, most with basil point (*en biseau*), including one deeply ochreous, but little rolled.
- 4 cordates, one regular and another heavily rolled.
- 1 cordate implement with one face flaked quite flat, the other apparently unfinished.
- 9 good round-headed and 16 square-headed scrapers, mostly made from medium-sized flakes.
- 14 flakes used as hollow-scrapers.
- 22 square-nosed flakes, most with terminal, and a few with lateral, nose and 7 special cases with nose curved to the left and a notch below it.
- 31 flakes of all shapes, with "spurs" of different widths at end or side.

16 good and 27 inferior side-scrappers (*racloirs*) of Le Moustier type, some forming rough "points."

1 rough segmental tool ("tea-cosy" type), with broad, flat base and zig-zag cutting-edge.

2 struck "tortoise-cores," inferior quality.

5 flake-implements of Northfleet (Levallois) type, the best and largest one with lateral bulb; two consist of the butt-end only.

5 flakes with facettèd butts, but not obviously struck from "tortoise-cores."

1 Aurignac point with lateral notch (*encoche*), perhaps from the surface.

Collectors assert that ovate implements were found among the shells, and it certainly looks as if many of the earlier types, which might be considered nearer in date to the shells, are derived, the specimens obviously *in situ* being of St. Acheul and Le Moustier character. This evidence from the Stopes collection is supported by specimens in the cabinets of Mr. W. M. Newton and Mr. A. E. Relph (to name only those), and there is room for some ingenious theory to reconcile the flints and the fauna discovered at this extraordinary spot on the 100-ft. terrace of the Thames.

This sequence was, to some extent, foreshadowed by Mr. W. M. Newton in MAN, 1901, 66, and the following notices of the shell-bed are given in chronological order: *Journ. Roy. Anthr. Inst.*, XXIX (N.S. II), 302 (first account, in 1900); *Proc. Geol. Assoc.*, XVII, 238; *Report Brit. Assoc.*, Southport meeting, 1903, 803; *Proc. Geol. Assoc.*, XXI, 492; *Archæologia*, LXV, 190; and *Proc. Prehist. Soc. East Anglia*, II, 253.

REGINALD A. SMITH.

Crossing the Line.

The Famous Baptism of the Tropic. By Lt.-Col. H. A. Rose.

Rose.

102

Fréminville (Chevalier de, 1787-1848), a capitaine des frégates du Roi,* thus describes this *carnaval*, as he calls it:—

On the afternoon of the day preceding the ship's entry into the tropic a hail of dry peas and cartridge-cases fell from the tops on to the forecastle. These announced the *courrier* of the "Bonhomme" or "King of the Tropic." This *courrier*, cracking his whip, descended from the main-top. He was a top-man, very handsomely dressed as a postilion, with a striped waistcoat, badge, buckskins, boots and spurs according to regulation, not forgetting his big queue or *catogan*, which symbolises the headgear of the true *braves enfants de la Poste*. Advancing towards the commandant, he handed him a letter from his sovereign, which demanded the customary tribute from those who entered his realms for the first time.

On the next day (or next but one) the ship entered the Tropic of Cancer. From morning preparations for the *fête* had been made. A tent had been pitched at the foot of the main-mast; underneath it was an altar surmounted by a cross, and all the attributes of navigation—maps, compass, etc.; to its right the throne of Father Tropic; to its left a tall vat, filled with water, across which was placed a plank. A clap of thunder and a shower like that of the day before announced the king's arrival.

He descended from the main-top. He had a white beard of tow, and though covered with furs, pretended to shiver, in spite of the heat. After him came down his court, consisting of half the crew. The disguises were quite ingenious. A beardless youth represented Amphitrite, wife of the "Old Tropic." Cabin-boys, as Tritons, furnished her train. Behind this group came Neptune, drawn on a gun-carriage, trident in hand. Then came slaves of the Tropic smeared with various colours. Here a group of warriors dressed as Orientals, thanks to the loan of all the

* Bibliothèque de la Révolution et de l'Empire, VII., *Mémoires du Chevalier de Fréminville*: Paris, 1913, E. Champion, pp. 30-33. What follows is a condensed translation.

flags on board ; there the *gendarmes* and almoner of Father Tropic—Breton peasants with a dancing-bear ; and, to close the train, the devil with his horns and fork. Having defiled on the deck and round the tent, the Bonhomme went inside it, and his train ranged itself round him. His secretary called all those who were to receive the baptism. Two ladies were first baptised—with some drops of water on their fair hands. Then came the men, who were made to swear to respect, in all circumstances, the wives of good sailors. Each was then placed on the fateful plank, and a page of Father Tropic presented him with a basin. If he dropped an offering into it he got a few drops of water on his sleeve ; if not, he was brusquely seized by the waistband of his trousers and cast into the vat, to the intense joy of the onlookers. The soldiers, too numerous for individual baptism, were drenched by the hose *en masse*. The rite concluded with songs and dances on the fore-deck, rank and age being soon overlooked on the poop. People threw water at one another and played a thousand tricks. The Tropic's health was finally drunk in punch.

De Fréminville ascribes the origin of this ancient rite to the Portuguese and Spanish navigators who ventured at the end of the fifteenth century upon the boundless Atlantic. He also says it was allowed on State ships in order to maintain cheerfulness, one of the elements of health.

This account differs a good deal from that given in the Book of Days, in which no mention is made of the "Old Tropic." As practised by English sailors, shaving the novice was a principal feature, and by far the roughest part of the ordeal. The Book of Days says the custom, in some form or other, is believed to be very ancient, and to have been originally instituted on the occasion of ships passing out of the Mediterranean into the Atlantic, beyond the "Pillars of Hercules." Could anyone give references to classical Portuguese or Spanish authorities on the origin and history of the rite ?

H. A. ROSE.

Europe : Witchcraft.

Murray.

Witches' Transformations into Animals. By M. A. Murray.

103

The belief that human beings can change themselves, or be changed, into animals carries with it the corollary that wounds received by a person when in the semblance of an animal will remain on the body after the return to the human shape. This belief seems to be connected with the worship of animal-gods or sacred animals, the worshipper being changed into an animal by being invested with the skin of the creature, by the utterance of magical words, the making of magical gestures, the wearing of a magical object, or the performance of magical ceremonies. The witches of the sixteenth and seventeenth centuries appear to have carried on the tradition of the pre-Christian cults, and the stories of their transformations, when viewed in the light of the ancient examples, are capable of the same explanation. Much confusion, however, has been caused by the religious and so-called scientific explanations of the contemporary commentators as well as by the unfortunate belief of modern writers in the capacity of women for hysteria. At both periods pseudo-science has prevented the unbiassed examination of the material.

There are no records extant of the animals held sacred by the early inhabitants of Great Britain, but it is remarkable that the range of the witches' transformations was very limited ; cats and hares were the usual animals, occasionally, but rarely, dogs, mice, crows, rooks, and bees. In France, where the solemn sacrifice of a goat at the Sabbath points to that animal being sacred, it is not surprising to find both men and women witches appearing as goats and sheep. Unless there were some definite meaning underlying the change of shape, there would be no reason to prevent the witches from transforming themselves into animals of any species. It

would seem, then, that the witches, like the adorers of animal gods in earlier times, attempted to become one with their god or sacred animal by taking on his form; the change being induced by the same means and being as real to the witch as to Sigmund the Volsung* or the worshipper of Lycæan Zeus.†

In the earlier cults the worshipper on becoming an animal, changed his outward shape only to the eyes of faith, though his actions and probably his voice proclaimed the transformation. The nearest approach to an outward change was by covering the body with the skin of the animal, or by wearing a part of the skin or a mask.

The Aberdeen witches (1597) are a good example of the change which was not visible outwardly. In all the cases, the accused are stated to have "come to the Fish Cross of this burgh, under the conduct of Sathan, present then with you, playing on his form of instrument, ye all danced about the Fish Cross and about the Meal-market a long space." There is no suggestion of any change of form except in the case of Bessie Thom, who was tried at the same time and for exactly the same offence as her comrades: "There, accompanied with thy devilish companions and faction, transformed in other likeness, some in bares, some in cats, and some in other similitudes, ye all danced about the Fish Cross."‡ The evidence of Marie Lamont (1662) suggests the same idea of a ritual, though not an actual, change; she confessed that "shee, Kettie Scot, and Margrat Holm, cam to Allan Orr's house in the likenesse of kats, and followed his wif into the chalmer"; on another occasion "the devil turned them in likeness of kats, by shaking his hands above their heads."§ In Northumberland (1673) the same fact appears to underlie the evidence; Ann Armstrong declared that at a witch meeting "the said Ann [Baite] hath been severall times in the shape of a catt and a hare, and in the shape of a greyhound and a bee, letting the devill see how many shapes she could turn herself into. They [the witches] stood all upon a bare spott of ground, and bad this informer sing whiles they danced in severall shapes, first of a hare, then in their owne, and then in a catt, sometimes in a mouse, and in severall other shapes. She see all the said persons beforementioned dancing, some in the likenesse of hares, some in the likenesse of catts, others in the likenesse of bees, and some in their owne likenesse."||

The method of making the ritual change by means of magical words is very clearly recorded in the Auldearne trials, where Isobel Gowdie, whose evidence was purely voluntary, gives the actual words both for the change into an animal and for the reversion into human form.

To become a hare:

"I sall goe intill a haire,
With sorrow and sych and meikle caire,
And I sall goe in the Divellis nam,
Ay quhill I com hom againe."

To become a cat or a crow the same verse was used with an alteration of the second line so as to force a rhyme; instead of "meikle care," the words were "a

* *Volsunga Saga*, Books I, II; Wm. Morris: *Collected Works*, XII, pp. 32, 77.

† *Pausanias*, VIII, 2, 3, 6, ed. Frazer. *Op.* also the animal names applied to priests and priestesses, e.g., the King-bees at Ephesus; the Bee-priestesses of Demeter, of Delphi, of Proserpine, and of the Great Mother; the Doves of Dodona; the Bears in the sacred dance of Artemis; the Bulls at the feast of Poseidon at Ephesus; the Wolves at the Lupercalia, &c.

‡ *Spalding Club Miscellany*, I, pp. 97-8, 114-15, 165; *Bessie Thom*, p. 167. Spelling modernised.

§ Sharpe: *Historical Account*, pp. 133, 134.

|| "Depositions from York Castle." *Denham Tracts*, II, pp. 299, 301, 304.

black shot" for a cat, and "a black thraw" for a crow or crow. To revert again to the human form the words were:

"Hare, hare, God send thee care,
I am in an hare's likeness just now,
But I shall be in a woman's likeness even now,"

with the same variation of "a black shot" or "a black thraw" for a cat or a crow. The Auldearne witches were also able to turn one another into animals: "If we, in the shape of an cat, an crow, an hare, or any other likeness, &c., go to any of our neighbours houses, being Witches, we will say, I (or we) conjure thee Go with us (or me). And presently they become as we are, either cats, hares, crows, &c., and go with us whither we would.—When one of us or more are in the shape of cats, and meet with any others our neighbours, we will say, Devil speed thee, Go thou with me. And immediately they will turn in the shape of a cat, and go with us."* The very simplicity of the method shows that the transformation was ritual; the witch announced to her fellow that she herself was an animal, a fact which the second witch would not have known otherwise. The second witch at once became a similar animal and went with the first to perform the ritual acts which were to follow. The witches were, in their own estimation and in the belief of all their comrades, to whom they communicated the fact, actually animals, though to the uninitiated eye their natural forms remained unchanged.

The French witches wore the skin or a portion of an animal in the sacred dance. In Lorraine (1589) Bernhardt's Nicolæa stated that she had seen in an open field "mitten am hellen Tage, einen Tanz von Männern und Weibern, und weil dieselben auff eine besondere Weise und hinterrücks tanzten, kam es ihr frembd für Stunde derhalben still, und sahe mittallem Fleiss zu da ward sie gewahr, das etliche in dem Reyhen waren so Geiss und Kuhfuss hatten."†

In the Lyons district (1598) "il y a encor des Demons, qui assisteut à ces dances en forme de boucs ou de moutons. Antoine Tornier dit que lors qu'elle dansoit, vn mouton noir la tenoit par la main avec ses pieds bien haires, c'est à dire rudes & reuesches."‡

Ritual masking will also account for the transformation into animals. In Lorraine (1589) a man-witness stated that "indem wird er eine Höle, welche sie nennen die Morelianische Klippe, gewahr, darinnen sechs Weiber mit Larven umb ein Tisch mit guldenen und silbernen Geschieren herumb tanzten."§ Boguet also had evidence of the wearing of masks: "Ils se masquent pour le iourd'huy, selon Claude Paget, & avec elle plusieurs autres.—Ils se masquent encor aujourd'huy pour la plus part. Estienne Poicheux rapportoit que partie des femmes, qu'elle auoit veües au Sabbat estoient voilées. Et pour cela les Lombards par leurs loix les appellent "Masas."|| Barbe, the wife of Jean-Remy Colin de Moyement in Lorraine (1613) said that "elle a veu dancier les assistans en nombre de sept à huit personnes, parties desquelles elle ne cognoissoit ad cause des masques hideux."¶ The masking and disguising of the witch is probably the explanation of the evidence given by the boy-witch, Arnold von Holthaus, at Münster (1644): "Arnold wollte auf dem Tanzplatze Hasen, Katzen, Mäuse, Schweine, Wölffe, usw. verfertigt haben."**

There is also another method of transformation, which is the simplest. The witches themselves, like their contemporaries, believed that the actual animals, which they saw, were human beings in animal form. Jeannette de Belloc, aged twenty-four,

* Pitcairn: *Criminal Trials*, III, pp. 607, 608, 611. Spelling modernised.

† Remigius: *Demonolatria*, Pt. I, ch. xiv, p. 67.

‡ Boguet: *Discours des Sorciers*, p. 132.

§ Boguet, pp. 120, 133.

** Humborg: *Hexenprozesse*, p. 59.

§ Remigius: Pt. I, p. 65.

¶ Fournier: *Epidémie de Sorcellerie*, p. 16.

in the Pays de Labourd (1609), described the Sabbath as "vne foire celebre de toutes sortes de choses, en laquelle aucuns se promenēt en leur propre forme, & d'autres sont transformez ne scayt pourquoy en animaux. Ella n'a iamais veu aucune d'elles se trāsformer en beste en sa presence, mais seulement certaines bestes courir par le Sabbat."* Helen Guthrie, of Forfar (1661), states the case with even greater simplicity: "The last summer except one, shee did sie John Tailzeour somtymes in the shape of a todde, and somtymes in the shape of a swyn, and that the said John Tailzeour in these shapes went up and doune among William Millne, miller at Hetherstakes, his cornes for the destruction of the same, because the said William hade taken the mylne ouer his head; and that the diuell cam to her and pointed out John Tailzeour in the forsaid shapes unto her, and told her that that wes John Tailzeour."†

REVIEW.

Europe: Geography.

Fleure.

Human Geography in Western Europe. By H. J. Fleure. London: Williams and Norgate. 8vo., pp. vii and 263.

104

This book is a geographical study of, from the standpoint of the interaction of man and circumstance, an appreciation of the *genius loci* of the human groups of Western Europe. The author distinguishes three main zones in accordance with the response of the soil to human effort. The central core of the great European highlands to a large extent refuses sensible increment even to prolonged effort, and is, therefore, termed a Region of Difficulty. The southward slopes to the Mediterranean have a favouring climate yielding an early response and a steady moderate return to effort, allowing of a certain amount of leisure and opportunities for intercommunication. These are termed Regions of Increment; they have been characterised by a development of spirituality, and have contributed to the world flowerings of æsthetic appreciation and ideals of social conduct and practical life. The portions of the northern temperate forest bordering on grass lands needed much hard work before they were converted into farm and cornland. Effort was the dominant note, though the ultimate increment was often large. These areas are termed a Region or Zone of Effort. The more northern forests on the arctic fringe remain regions of difficulty. While civic ideals and art could develop in the zone of increment the regions of effort progressed more slowly. The war against the forest encouraged co-operation and the growth of village communities, with, however, the limitation of being self-centered and suspicious of the outer world; these regions thus being unsuited for the spread of idealisms. The regions of difficulty have continued from early times with the old activities of stock raising, lumbering, and hunting. They have always tended to export men. These regions of difficulty have been gradually invaded from the region of effort, the change being often accompanied by the spread of a broad-headed population, and the retreat of a long-headed population which has shown an attachment to an adventurous life. The greatest advances have come in regions of contact where there is considerable racial admixture.

Dr. Fleure traces these lines of contact in each of the main areas of the West, showing the results of contact with the older Mediterranean civilisation, whether across land routes or as a result of coastal traffic. He discusses the meaning of nationality at the present day as contrasted with the past, concluding that racial unity is, if possible, a disadvantage. The territorial principle, unity of religion, custom, and language all help, but there is no *sine quā non*, no absolute criterion of nation-

* De Lancre: *Tableau*, p. 129.

† Kinloch and Baxter: *Reliquiæ Antiquæ Scotiæ*, p. 123.

hood, but if a moderate-size group has a common language with a rich spiritual tradition, that group will always strive to keep its individuality. The volume is unfortunately scarcely large enough for the development of the arguments in detail, but contains much matter provocative of thought.

F. C. S.

ANTHROPOLOGICAL NOTES.

Dr. Gann's Work in British Honduras.

In British Honduras Dr. T. Gann has been engaged in digging for the museum. One of the sites was of great interest as it contained material of Spanish origin, together with typical Mayan artifacts. The work is still being carried on, and Dr. Gann's collections from various places in the colony have been secured. Included were two large human heads in stucco and painted in colours, found in a recently discovered chamber in the sub-structure of the House of the Governor, Uxmal, Yucatan. They were parts of figures larger than life size, and were broken off by the vandals who found the chamber and brought to Belise. No further details could be ascertained, unfortunately.

A. C. B.

Lectures to Soldiers.

The Institute has been asked to aid in obtaining volunteer lecturers in connection with the War Office scheme of education within the Army. The range of subjects is wide, and non-technical treatment is required. Travelling and other expenses will be paid by the War Office, and lecturers for the Continent as well as this country are needed. Fellows who are interested should communicate in the first instance with Hon. Sec., Dr. H. S. Harrison, 50, Great Russell Street, W.C.1.

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Pre-History in Essex as recorded in the Journal of the Essex Field Club. By S. Hazzledine Warren. 42 pp. Simpkin, Marshall, and Co., Ltd., and Essex Field Club, Stratford, Essex. (The Author.)

The Beginnings of Buddhist Art, and other Essays in Indian and Central-Asian Archaeology. By A. Foucher, revised by the Author and translated by L. A. Thomas and F. W. Thomas. 10 $\frac{1}{2}$ x 7 $\frac{1}{4}$. 316 pp. 50 Plates. Paul Geuthner, Paris, and Humphrey Milford, London. 31s. 6d. net. (H. Milford.)

A Tonga Grammar. By J. R. Fell. 7 x 4 $\frac{3}{4}$. 130 pp. Society for Promoting Christian Knowledge. (The Author.)

A Study of Bagobo Ceremonial Magic and Myth. By Laura Watson Benedict. 9 $\frac{3}{4}$ x 6 $\frac{1}{4}$. 308 pp. 8 Plates. Reprinted from the Annals of the New York Academy of Sciences. Vol. XXXV. (The Author.)

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